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REPORT

ON

AN ECONOMIC SURVEY OF BAIRAMPUR
(with Special Reference to three other Villages)

IN THE

HOSHIARPUR DISTRICT

(Undertaken under the auspices of the Standing Board
of Economic Enquiry, Rural Section, Punjab)

BY

RAM LALL BHALLA, M. A.,

Assistant Professor of Economics,
Forman Christian College, Lahore.

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FOREWORD.

The following very interesting study on rural economics has been prepared by Mr. Ram Lal Bhalla, M.A., under the auspices of the Rural Section of the Economic Board of the Punjab, which has undertaken its publication without, however, assuming responsibility for the views and opinions expressed therein. The volume embodies the result of extensive local investigations personally conducted by Mr. Bhalla and concentrated on a comparatively small tract of country. It gives evidence of a diligent observation and careful thought applied in the light of a good knowledge of general economic science. In the view of the Economic Board the intelligent first hand collection of facts and material of the kinds contained in this volume by a gentleman of Mr. Bhalla's attainments is an essential preliminary to the placing of our present uncoordinated knowledge of the rural economics of the province on a scientific basis—a result which the Board regards as eminently desirable in the interests of administration as well as in other respects. It is with a view to placing such material at the disposal of the public generally and of as wide a circle of scientific economists as possible, that the Board has undertaken the publication of the results of Mr. Bhalla's diligent and protracted volume. It is under a deep debt of gratitude to the Principal of the Forman Christian College, Lahore, for so kindly placing Mr. Bhalla's very valuable services at its disposal.

P. J. FAGAN,

The 28th January 1922. *Chairman, Rural Section.*

Errata.

Page 1, line 19, *for* " years pas " *read* " years past."

,, 3, line 38, *for* " Talwandi ko " *read* " Talwandi ka. "

,, 7, footnote, line 2, *for* " or prhaps " *read* " or perhaps."

,, 10, Table of classification of, line 11, *for* " garded " *read* " garden."

,, 11, line 16, *for* " there have " *read* " they have. "

,, 16, line 24, *for* " 1 ulch " *read* " Dulchi. "

,, 22, line 33, *for* " has " *read* " has. "

,, 24, line 15, *for* " vilages " *read* " villages."

,, 28, line 28, *for* " culivate " *read* " cultivate."

,, 37, Table No. XI, line 2, *for* " frajmentation " *read* " fragmentation."

" 79, Table No. XIX, under " kind of soil " *for* " Rater " *read* " Retar. "

,, 84, footnote, line 1, *for* " whose servicces " *read* " whose services. "

" 94, line 30, *for* " Jat of Mukimpur pay SS " *read* " Jat of Mukimpur pays."

,, 94, line 34, *for* " necesity " *read* " necessity."

,, 105, Table No. XXIV, column of remarks, line 3 *for* " to purehase " *read* " to purchase. "

,, 113, line 41, *for* " his estates " *read* " his estate."

,, 114, line 114, *for* " or such secrecy " *read* " and such secrecy.

,, 146, line 35, *for* " hot beds of mosquito " *read* " hot beds of mosquitos "

,, 161, line 28, *for* " taking bath " *read* " taking a bath."

,, 164, line 29, *for* " relatives reach " *read* " relatives arrive."

INTRODUCTION.

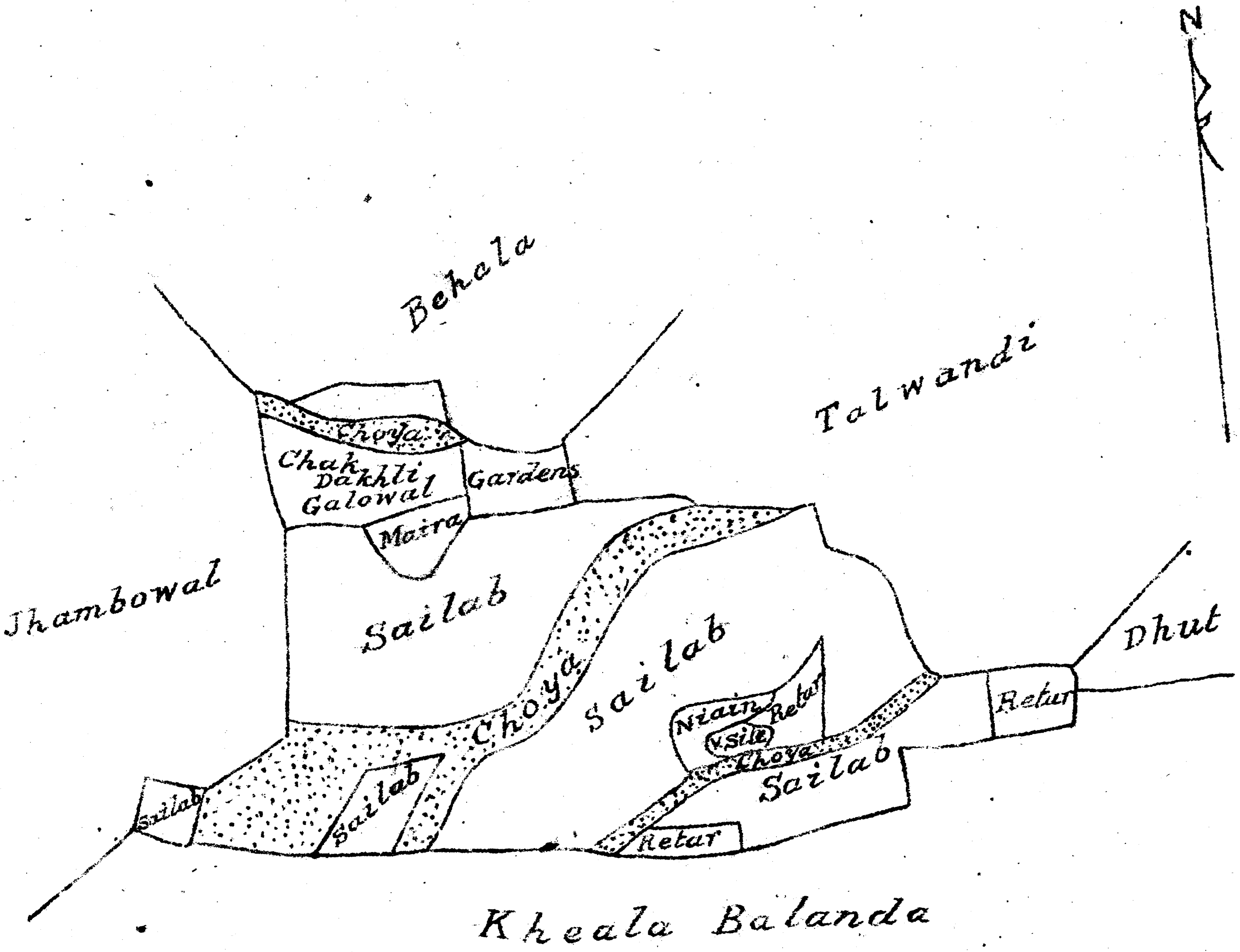
The Hoshiarpur District includes two outlying spurs of the Himalaya mountains and a stretch of plain, the average width of the district being about 34 miles and the average length not quite 100. From the point of view of fertility and population the Sirwal Circle or that part of the district just below the last spur of the Himalaya is the most fertile and the most thickly populated. The Jats and the Rajputs are the most important communities of agriculturists in this section. When I was appointed to examine the economic condition of four of the villages in this area, after consulting with Mr. Iqbal Singh, M.A., my fellow investigator, I chose the following four villages:—Bairampur and Dudiana Kalan with A and B Class societies, respectively, Kutabpur in which a D Class society had just been established, and Sherpur Kham without a society. In the course of my investigation I found that the Rajput villages were much more heavily in debt than the Jat, and in studying Kutabpur I found that its lands had been for a number of years past going into the possession of the Jat cultivators of the adjoining village of Mukimpur. So, with the permission of the Deputy Commissioner, I took up the study of Mukimpur instead of Sherpur Kham. To make the study still more certain—the investigation into the causes of Rajput poverty—I took up the study of Daulowal, a Rajput village owned by very intelligent and progressive Rajputs instead of Dudiana Kalan, which is an average Rajput village. In this way I hoped to get some light upon the relative merits of Jats and Rajputs as cultivators and I think my investigation clearly shows what I point out in the following paragraphs.

I found that the Jat generally possesses better cattle and that even when the cattle of the Rajput are equally good the Jat's ploughing is better, that the Jat attends to the field work personally and works much harder himself, that the Rajput depends upon the Chamars for most of his field work, that the Jat gets large amount of help from his wife and family, as they bring the food to the fields, feed the cattle, help in sowing and weeding, picking cotton and numerous other agricultural activities. On the other hand, the Rajput's wife does no field work whatsoever. The higher the family the more strictly the woman observes *Pardah*. In fact, she needs the help of sweepers and servants within her own household in having water brought in, fuel prepared and other odd jobs done by servants, which the Jatni woman does herself. The result is that the expenses of cultivation are much higher for the Rajput than for the Jat. On the other hand, the Rajput's standard of living is higher than that of the Jat. He spends more money on his luxuries. The Jat is also more enterprising outside of his immediate agricultural work. He often hires his cart and oxen for the hauling of bricks and such other work, and has a sharp eye on the market. Even where the Rajput has a larger holding and better cattle, he does no better than the Jat on the smaller holding and with poor cattle.

The chapter at the end of the Report contains a few general conclusions and suggestions. Except for that chapter, no attempt has been made to do anything but state facts. The tables were carefully prepared and will repay perusal. The reader's attention is drawn to some of the principal facts contained in these tables. This report concentrates attention on Bairampur with only occasional references to the other three villages. An intensive study of Bairampur alone took up my entire time for more than four months, and this with the help of several assistants.

In closing this introduction I would like to draw attention to the fact that the Punjab village affords not only a rich field for the economist, but also for the sociologist. Any one who undertakes the study of village sociology will reap a bumper harvest. I am deeply grateful to the Board of Economic Enquiry for this opportunity, which I have considered as a real privilege. I would like to express my thanks to Pandit Sundar Lall of the village of Tutra, Chowdhri Ghulam Muhammad of Daulowal, Chowdhri Jawala Ram, Lambardar of Bairampur, and the Sadar Qanungo of Hoshiarpur. I desire to express my special gratitude to Dr. E. D. Lucas, whose help, advice and sympathy have proved of great use to me.

Bairampur.


N
Behala
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Choya
Chak Dakhli Galowal
Gardens
Maira
Jhambowal
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Choya
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Dhut
Niain
Retar
V. Site
Choya
Retar
Sailab
Sailab
Sailab
Retar
Kheala Balanda

CHAPTER I.—PHYSICAL DESCRIPTION OF THE VILLAGE, ITS SOILS AND IRRIGATION.

Introduction.—Bairampur, a small village in the district of Hoshiarpur, is situated at a distance of about fourteen and a half miles to the north-west of Hoshiarpur, the central place of the district. It lies to the south-west of Garhdiwala, its market town. The main road from Hoshiarpur to Dasuya runs up to the village Bhunga, in the Kapurthala State, whence there branches off a *kacha* path leading to Mauza Dhut and thence to Bairampur. There is another *kacha* path which leads to Bairampur *viâ* Hariana, Kutabpur and Jallowal. From Bairampur to Garhdiwala—a distance of about three miles—there runs a *kacha* road or better, a path, passing through some mango gardens.

Boundaries of the village.—On the north and north-east the boundary of the village meets with that of Talwandi Jattan. The eastern corner is covered by Dhut or Dhutan—a village belonging to the Kapurthala State. On the south and south-east lies Khiala-Bulanda—a Rajput village. On the west lies Jhambowal and on the north-west Behala. Just below the *Choya* to the north-west, near Behala, and between the gardens of Bairampur and the boundary line between Jhambowal and Bairampur, there is a small area of *barani* lands, which, though included in the village map, does not belong to it, but to another village. It is known as the *Chak Dakhli* of Galowal.

Physical description and soils.—The total area of the village is 336 acres. The *abadi-deh* (village proper) covers about 9 acres and the cemetery and the cremation grounds 6 acres. About 81 acres consist of uncultivable land. The total cultivable area of the village is 240 acres.

There are three *chohs* which run through the village. The one nearest the village *abadi* and lying to the south of it covers a small area and is over-flooded only occasionally. It is, in fact, a sort of a water-way for the waters of the fields of this village and of others lying at a higher level towards the east. The harm done by this *choh*, as is the case with the one lying to the north-west of the *Chak-Dakhli of Galowal*, is insignificant, for they are more like local streams than *chohs*. The third is known as the Talwandi *ka choh*. Rising near Dholbaha, in the Siwaliks, it follows a precipitous course, and passing through Talwandi, enters the village boundary in the north-east and follows a south-westerly direction. After passing through about two-thirds of the breadth of the village, it divides into two branches—the main stream running toward the south-west, while the smaller one adopts a more southerly direction. Before entering the boundary of Khiala-Bulanda, the main stream broadens, thus affecting a larger area. The two arms of the *choh* enclose a small portion of *sailab* land.

When over-flooded the *choh* does a lot of harm to the village. To check its impetuosity the villagers grew *kharkana* and *nara* grasses, on a large scale, in 1908-09. The practice bore evil fruits. When the waters came down with a rush, finding an impediment in their usual course, they spread over the cultivated fields, damaging the crops and mixing a large quantity of sand with the soil. Since then it has never been practised on a large scale.

The Government made an attempt at remedying this state of affairs by taking possession of the hill-sides by the Land Preservation (Chohs) Act of 1900. The denuded state of the hill-sides, it was found, was mainly responsible (on account of excessive grazing) for the rush with which waters in the *chohs* ran down during the rainy season. The lands were taken possession of and afforestation, or better reafforestation tried. The results have been encouraging, the area under *chohs* having been reduced from 113,604 acres in 1884 to 98,948 acres in 1910-11.

TABLE No. I

Showing the rise and fall in the uncultivated area in Bairampur.

Year.	Total area of the village in acres.	Total uncultivated area in acres.	Percentage of increase (+) or decrease (—) on the average (91·5 acres).	Percentage of increase (+) or decrease (—) on the figure for 1884 (88 acres).	Percentage of the total area of the village (336 acres).
1885-86 ...	336	88	— 3·8	...	26·2
1890-91 ...	336	53	— 42·7	— 39·8	15·8
1894-95 ...	336	122	+ 33·8	+ 38·6	36·3
1898-99 ...	336	88·6	— 3·2	+ ·7	26·3
1902-03 ...	336	90·2	— 1·4	+ 2·5	26·5
1906-07 ...	336	87·5	— 4·3	— ·6	26
1910-11 ...	336	98	+ 7·1	+ 11·4	29·2
1914-15 ...	336	100	+ 9·3	+ 13·6	29·7
1918-19 ...	336	96	+ 4·9	+ 9·1	28·5

The damaging effects of the *choh* to this village can best be seen by a reference to table No. I. There has hardly been a year during which the *choh* did not affect the village one way or the other, and on the whole, it has perhaps done more harm than good. And, in fact, there is hardly a calamity which cannot, in some way, be connected with the rise and fall of the uncultivable area, due to *choh* action, *i.e.*, the rise and fall in the area under cultivation, in the number of cattle, and of the people in the village.

Bairampur is not an exception. The figures relating to Kutabpur * have even a sadder tale to tell, and may be tabulated thus :—

Year.	Total area of the village in acres.	Total uncultivable area in acres.	Percentage of the uncultivable area over the total.
1884-85	413	244	59
1888-89	413	257	62·2
1900-01	413	148	36·6
1911-12	417	215	51·5
1916-17	417	248	59·4

---

* Before the Sikh rule, Kutab Khan, a Rajput, founded this village. It is said that a *fakir* having been ill-treated by the villagers called the village " Kutta-pind "—" the village of dogs ", or better the " village of dog-tempered people." For a long time in the past and even till now among the common people the village was and is known as Kutta-pind. At the request of the villagers, the Settlement Officer styled it in 1884 " by the less shameful name of Kutabpur. " The boundaries of the village, the position of the *chohs* and the various kinds of soils may be seen by casting a glance on the map attached. The proprietors are Rajputs, though some non-agriculturists, too, have become proprietors by purchase.

Under the Sikhs, the village was granted as a jagir to a Jat of the Jullundur District. Sheikh Imad-ud-Din, cancelling the Jagir, imposed a revenue of Rs. 275 per annum. After the Sikh War the British occupied the village. In 1911-12 the soils of the village were classified by the Settlement Officer thus :—

Kind of soil.	*Area in acres.*
Banjar Jadid	8
Banjar Kadim	131
Ghair Mumkin	76
Total uncultivated ...	215
Niain	4
Sailab	5
Maira	83
Retar	98
Garden I	8
Garden II	4
Total cultivated ...	202
Total area of the village ...	417

Taking Mukimpur,* however, into consideration, we see that the uncultivable area has been constantly on the decrease since 1884 and the figures may be tabulated thus :—

Year.	Total area in acres.	Total uncultivated area in acres.	Percentage of the uncultivated over cultivated area.
1884-85	214	130	60·8
1888-89	214	127	58 9
1900-01	214	119	55 6
1911-12	214	116	54·2
1916-17	214	116	54 2

Before 1884 this village was a prey to *choh* action· "The cultivated area has been much reduced by *choh* action," wrote the Settlement Officer in 1884, "and suitable reductions have been allowed from time to time." The destructive action of the *choh* stopped long before 1900-01 and consequently it cannot be attributed to the afforestation of the hill-sides.

---

* At about the time that Kutabpur was founded, a number of Jats emigrated from Rajowal, and with the permission of the Governor of Hariana, settled at Mukimpur—the name of the village owing its origin, perhaps, to the word "Qiam," 'settlement or encampment.' Under the Sikhs, one Massa Singh owned it as a jagir and charged revenue at the net *batai* rate and *zabti* rents for sugarcane and cotton at Rs. 8 and Rs. 6 per ghumaon, respectively. On British occupation the jagir was cancelled. The boundaries of the village and the location of the various kinds of soils are clearly shown on the map. In 1911-12 the Settlement Officer classified the lands thus :—

Kind of soil.	*Area in acres.*
Banjar Jadid	*Nil*
Banjar Kadim	57
Ghair Mumkin	59
Total uncultivated ...	116
Niain	4
Sailab	2
Maira	62
Retar	24
Garden	6
Total cultivated ...	98
Total area of the village ...	214

Daulowal * seems to be a favourite of the gods. By the action of the *choh* itself, as will be seen by reference to the table below, it does suffer. But within the boundary of the village, near the place where the *choh* is intersected by the road from Dasuya to Hoshiarpur, there oozes out a spring of water, and with the help of that the villagers of Daulowal and Gobindpur Khunkhun irrigate their lands.

Year.	Total area in acres.	Uncultivated area in acres.	Percentage of uncultivated on total area.
1884-85	404	207	50·8
1889-90	404	150	37·1
1901-02	404	86	21·3
1911-12	407	113	27·8
1917-18	407	87	21·4

Whenever the *choh* does damage to the lands on this bank, the villagers, with the help of the waters from the spring, reclaim the lands.

The destructive action of the *chohs* is thus clear. At best it is but a mixed evil. There is not a single village

---

* A Rajput convert to Islam was granted some jagir lands during the Mughal period, or perhaps before. His descendants dividing the property, Daulowal fell to the lot of one Alladin, who, along with his descendants, continued to live at Niazian. Daulowal was, therefore, known, for a long time as "Daulowal Bechiragh"—"Daulowal without a lamp." Under the Sikhs it was held in jagir by one Gainda, Rajput, and afterwards by Kauranpuri, the incumbent of the temple at Garhdiwala, and his "chela" still holds it. In about 1850 the present village site was occupied by Mahndi Khan, Lambardar, and a number of other people. The boundaries of the village can be seen by a reference to the map attached. In 1911-12 the Settlement Officer classified the soils of the village thus :—

Kind of soil.	*Area in acres.*
Banjar Jadid	5
Banjar Kadim	22
Ghair Mumkin	83
Total uncultivated ...	113
Abi	22
Niain	14
Maira	45
Sailab	9
Retar	163
Garden	41
Total cultivated ...	294
Total area of the village ...	497

which at some time or the other has not suffered from their action. Whether the case of Mukimpur,* since 1884, is an exception or not, cannot safely be asserted. There may be other villages which have not been damaged by *choh* action in recent years. But if these villages represent the normal state of affairs, 75 per cent. of the villages which have a *choh* or *chohs* passing through or touching their boundaries fall an easy prey to this evil. The plantation of *kharkana* may prove of some use, but if the practice is to bear permanent fruits, it must be resorted to everywhere; in fact, it should begin right near the hills. Afforestation of the hill-sides may bring relief in due course, yet it is questionable if the damaging action of the *chohs* will cease to exist completely. A scheme with regard to the erection of a *band* near the Siwaliks for the purpose of collecting and storing rain water and then carrying the same to the neighbouring lands for irrigation, through canals and water channels, is said to have been considered and abandoned by the Government some years ago. If practicable and carried out, the measure, as Jawala, the Lambardar said, will be doubly blessed, bringing more of security and production for the people and more land revenue and water-rates for the Government.

The cultivated area of Bairampur was in 1884 classified by the Settlement Officer as follows :—

Kind of soil.	*Area in acres.*
Banjar Jadid †	1·0
Banjar Kadim †	18·5
Ghair Mumkin †	68·5
Total uncultivated ...	88

---

* The same *choh* passes through Kutabpur and Mukimpur. Since 1884 it has been destroying land in Kutabpur alone. If it were to change its direction of flow, it may attack and destroy land in Mukimpur too.

† "If for four successive harvests land which was once cultivated has not been sown it is called as *Jadid* or new fallow. If it continues to be uncultivated, this entry should be maintained for the next four harvests, after which the land will pass into the category of *Kadim* or old fallow. *Kadim* also includes cultivable waste. The term *Ghair Mumkin* is reserved for barren land. Lands under buildings, roads, streams, canals, etc., and barren sand (*ret*) or *kalar* should be entered as *Ghair Mumkin.*"—Douie's Settlement Manual, paragraph 267.

TABLE NO. II

Showing quadrennially the area cultivated or otherwise with kinds of soil from 1886-87 *to* 1918-19 *in Bairampur.*

YEAR.		Total area of the village.	UNCULTIVATED AREA.				CULTIVATED AREA.				
			Banjar Kadim.	Banjar Jadid.	Ghair Mumkin barren.	Total uncultivated.	Chahi.	Abi.	Sailab.	Barani.	Total.
		Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1886-87 ...	...	336	18·5	1	68·5	88	24·3	22	...	201·7	248
1890-91 ...	...	336	3	1·5	48·5	53	...	57·2	...	225·8	283
1894-95 ...	...	336	2·8	1·5	117·7	122	...	34	...	180	214
1898-99 ...	...	336	4·8	1	82·8	88·6	...	28·5	...	218·9	247·4
1902-03 ...	...	336	3·4	1	85·8	90·2	...	23·2	...	222·6	245·8
1906-07 ...	...	336	·6	2·9	84	87·5	...	1·2	...	247·3	248·5
1910-11 ...	...	336	11·3	1·7	85	98	...	6	166·5	65·5	238
1914-15 ...	...	336	13·8	3·2	83	100	...	6	162·2	67·8	236
1918-19 ...	...	336	34	8	54	96	...	...	158	82	240
Total	...	3,024	92·2	21·8	709·3	823·3	24·3	178·1	486·7	1,511·6	2,200·7
Average	...	336	10·2	2·4	78·8	91·5	2·7	19·8	54·1	167·9	245·6

	Acres.
Chabi *	24·3
Abi †	22·0
Barani ‡	201·7
Total cultivated	248
Total area of the village	336

Owing to a change in the direction of the flow of the *choh* when it is not in flood, and its unruly character, the *abi* land has been on the decrease (see table No. II), so that at the settlement of 1910-11 the area was reduced to 6 acres only, thus representing a decrease of 72·7 per cent. To some extent the village was recompensed, for the *sailab*§ land, an item absent in 1884, amounted to 166·5 acres, or 49·6 per cent. in 1910-11. But the retentive power of the soil for moisture does not seem to be permanent for the *sailab* land has been on the decrease since 1910-11, showing, possibly, that an annual flow of water is necessary for keeping it *sailab*. As the area under *sailab* land has fallen, the area under *barani* land has increased. In 1910-11 the soil of Bairampur was classified by the Settlement Officer as follows:—

Kind of soil.	*Area in acres.*
Banjar Kadim	1·7
Banjar Jadid	11·3
Ghair Mumkin	85
Total uncultivated	98
Abi	6
Niain‖	18
Sailab¶	166·5
Maira**	4·5
Maira Kalratha††	2·5
Retar ‡‡	26
Garden I §§	9·5
Garded II ‖‖	3·8
Garden III ¶¶	1·2
Total cultivated	238
Total area of the village	336

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* All land regularly irrigated from wells, whether built with or without masonry.

† Abi - "Land irrigated by stream or from *jhils* by lift or flow."

‡ Barani—"All land which is not irrigated and is under cultivation."

§ Sailab—"Low-lying alluvial land, naturally moist."

‖ Niain—"Manured land immediately round the village site or around scattered houses or cattle pens."

¶ The villagers of Bairampur held that their land was not *sailab* but *barani*, though it had been shown as *sailab* by the Settlement Officer.

** Maira—"Sandy loam."

†† Maira Kalratha—"Maira with an admixture of *kalar* or saltpetre."

‡‡ Retar—"Land covered with sand."

§§ Garden I—"All gardens over 30 years of age."

‖‖ Garden II—"All gardens from 12 to 30 years of age."

¶¶ Garden III—"All gardens under 12 years of age."

The rise and fall in the cultivated area depends on the uncultivated and is shown in Table No. II.

Irrigation.—The *abi* lands are irrigated with water from the *choh* whenever available. The lands in which rice is grown are irrigated by water from the neighbouring ponds when available. Artificial irrigation is mostly carried on with the help of the *kacha* wells whenever possible and necessary. In all the four villages there is only one *pacca* masonry well used for irrigating the crops.

The cost of digging a *kacha* well in Bairampur is nominal. Two or three zamindars join together and dig a well. One or two Chamars, too, may be employed to help, and the cost hardly exceeds Rs. 4 or Rs. 5. But such wells do not last long and are used as an emergency measure only. When the rains fail and ruin stares the zamindar in the face he digs them. They have to be constantly cleaned of rubbish and sand, and their irrigating capacity is small. At least two and sometimes three men are required to work. One or two men draw water out of the well with the help of *dhinglis* and the second or third hand, as the case may be, works in the field, regulating and directing the course of the water. Sometimes two *dhinglis* are used. In that case the well is made a bit more broad. If water be sufficient, and that is rarely the case, two men working on the *dhingli* and the third in the *khet* can irrigate about 1½ kanals of land in a day. Generally speaking, it is two men that work, one on the *dhingli* and the second in the field. They change places by turns and can irrigate about a kanal of land in a day. Water for irrigating more than 10 or 12 marlas (½ kanal) is seldom available at a time. The fields are properly, though a bit roughly, levelled before irrigation, but the flow of water being neither sufficient nor constant, a large quantity is absorbed by the channels through which it passes and thus wasted. It will perhaps be to the interests of the zamindars to follow the practice of the *Arains* round about Lahore : to sow something in the channels themselves.

TABLE No. III

Showing quadrennially the number of Dhinglis *in use, uncultivated area and the population of Bairampur.*

YEAR.	Number of working *Dhinglis.*	*Monthly average of rainfall for the year in inches.	Uncultivated area in acres.	Population.
1902-03	82	2·41	† 90·2	370
1905-06	19	1·82	‡ 87·5	...
1910-11	*Nil*	4·60	98	331
1914-15	*Nil*	4·40	100	...
1918-19	*Nil*	1·89	96	§ 292

The number of *dhinglis* in use seems to depend, as a glance at Table No. III will show,—

(1) On the amount of rainfall : if it is not sufficient, *dhinglis* are brought into use. The explanation of the figure for 1918-19 seems to be given by the generalisation No. (3) below.

(2) If the uncultivable area is small, a large number of *dhinglis* come into use; and no wonder, for an increase in or a high percentage of uncultivable area means heavy rainfall in Bairampur or the *Siwaliks.*

(3) As population falls, the number of labourers falls, their wages rise, and the number of *dhinglis* in use falls too.

The absence of *pacca* wells for irrigation is due to several causes, some of which are—

(1) *Sailab* land is generally moist and is in need of irrigation only when there is a drought. Wells are required, therefore, as a protective measure only. The soil is, on the whole, *maira-retar,* though moist ; and the zamindar seems to opine that a well sunk in such land may not prove paying in the long run, for it will not last as long as in good loamy soils.

(2) The morcellement or fragmentation of the holdings is so great that *pacca* wells cannot be sunk and made paying. A good *pacca* well can be made paying only when there is sufficient land to be irrigated lying round about it. There are hardly any such holdings in Bairampur. The

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* The average for all these years is 3·02 inches.

† The average for these years is 94·3 acres.

‡ Assumed the same as for 1906-07.

§ Assumed to be the same as in August 1920.

only remedy lies in co-operative well sinking.* The possibility of future quarrels and dissensions is a bar to the giving of practical shape to the scheme at the present time.

(3) The cattle in possession of the zamindar are not strong enough or sufficient in number to run the Persian wheel or the *charsa* economically. This difficulty is not insurmountable however.

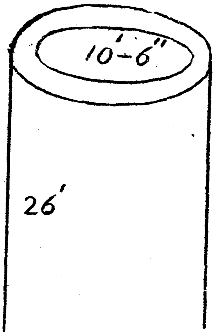
(4) The sinking of masonry wells means the spending of money and the zamindar does not possess sufficient funds. Of *taccavi* loans he is, generally speaking, ignorant, and even if informed, unwilling to borrow from the "*Sirkar.*" It is rather doubtful if the sinking of wells will prove economic, unless the standard of agriculture itself is raised in such villages.

APPENDIX TO CHAPTER I.

Estimation of the cost of sinking a well.

On account of the absence of masonry wells for irrigation in Bairampur, actual figures with regard to the cost of sinking a well are not available. But Bairampur is situated at about the same distance from Garhdiwala, wherefrom bricks and other materials can be had, as Tutra or Bhalliala is from Hariana. The actual cost of sinking a well in Tutra in 1919 was as follows:—

The inner diameter of the well measured 10½ feet.
The outer diameter of the well measured 12½ feet.
Height of the masonry work built 26 feet.



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* It is highly creditable for the villagers that two *pacca* wells have recently been sunk by a few families jointly, on co-operative lines (1921).

The circular piece of wood, the *gand*, on which the masonry well was built

		Rs.	A.	P.
(*a*) A shisham tree cut from the garden of the owner of the well, valued at Rs. 18. Less the worth of fuel obtained Rs. 3.				
Net cost of the wood ...		15	0	0
(*b*) Payment on account of felling the tree and preparing the *gand*		19	0	0
Digging the earth—				
A contract made with the Chamars at piece rates, to dig the earth to the level of the water under the ground.	Rs.			
(*i*) In cash ...	16			
(*ii*) 1 maund of *Gur* ...	4			
Total ...		20	0	0
Bricks 19,700 at Rs. 15 per thousand ...		295	8	0
Cost of carriage of bricks at Rs. 3 per thousand		59	1	9
32 maunds of lime at Re. 1-10-0 per maund ...		52	0	0
64 cubic feet of *surkhi* at 3 annas per cubic foot		12	0	0
Cost of carriage of *surkhi* and lime for 3 *gaddas* at Rs. 2 per *gadda*		6	0	0
Employment of kamins as labourers during the construction of the masonry work at special concession rates of 4 annas per diem ...		21	0	0
Two masons for 34½ days at 12 annas per diem		51	12	0
Chobas or sinkers of the well for sinking the well by 7½ *haths* (about 11 feet) at Rs. 5 per *hath*		37	8	0
Plus 1 seer kham of ghee per *hath* valued at one seer for a rupee		7	8	0
Plus rations to the three sinkers for 12 days, *atta*, *dal*, and *gur* at Re. 1-14-0 per diem ...		15	0	0
Distribution of *gur* among the labourers, masons, and divers (1 maund)		4	0	0
Miscellaneous expenses, including the cost of constructing a frame work on which heavy loads were placed for facilitating the sinking of the well		5	0	0
Labour employed for helping in the sinking of the well :(12 labourers for 12 days, every day, and 4 on the 13th) at Re. 0-6-0 per day ...		60	2	0
Estimated cost of what remains to be done, *e g.*, the construction of a small wall for the Persian wheel		19	8	3
Total ...		700	0	0

In Bairampur the cost may at present be estimated to be about Rs. 800. The materials will, possibly, not be available at the same cost; but, on the other hand, the zamindar will save money by carting the bricks and other materials in his own *gadda*.

CHAPTER II.

A.—The Land, its Holdings and Division and Tenancy.

B.—Fragmentation of Holdings.

A.—The Land, its Holdings and Division and Tenancy.

The history of the village is rather obscure before 1852. About the latter part of the 18th century, Bairam Khan, a Rajput, founded the village. About the first decade of the 19th century 9 families of Dhami Jats emigrated from Sherpur Khurd, and settled in Bairampur, perhaps, as Bairam Khan's tenants-at-will. Before the Sikh rule, Bairam Khan left for Mecca and never returned The settlers became *maliks*, and were treated as such by the Sikhs.

A regular division of the land never took place before the British occupation. At the time of the regular settlement the land was divided into 11 ploughs, thus :—

Dulchi's family	... 2¼ ploughs.
Dildar Singh's family ...	... 1 plough.
Desa's family ...	... ¾ ,,
Rama's ,, ...	... ½ ,,
Ram Singh's family ...	... ¾ ,,
Ram Sen's ,, ...	... 1½ ploughs.
Gahi's family ...	... 1 plough.
Mahla's ,, ...	... ¾ ,,
Milkhi's ,, ...	... 1½ ploughs.
Shamilat (joint) ...	... 1 plough.

The total number of owners in 1852 was 18, and the number of the representatives of each family different : Dulchi, for example, was represented by one son, while the representatives of Ram Sen numbered four. The basis of of division was, probably, *de facto* possession, coupled with the importance and influence of the representative of a family.

At the same time, *viz.*, 1852, there were three occupancy tenants. One of them was a Jat, whose descendants were converted into *maliks* between 1890 and 1900. About 1915, on account of the failure of lineal heirs, his lands reverted to the original owners. The second was Sahib Ditta, Saini, whose name disappears in the records for 1868-69, possibly on account of his dying without leaving any lineal heirs. The third was Madho, Gujar, a *maurusi* in the *shamilat deh*. His descendants still enjoy their old rights.

A Muhammadan *fakir* held *muafi* land measuring about ·24 acres and his *chela* still holds it. The *misl-i-haqqiat* for 1884-85 and the *Jamabandi* for 1868-69 show the existence of another *muafidar* of 1·5 acres. The *muafi* is still enjoyed by Ram Das, a disciple of the previous *muafidar*.

The *wajib-ul-arz* for 1852 expressly states that no mortgages existed in the village at that time, and from what has been stated above it is clear that, with the exception of the Jats, a Gujar, a Saini and a *muafidar*, no one had any sort of rights over the land in the village. In the early sixties, a widow mortgaged 4·3 acre of land in consideration of her husband's debts and the mortgagee was a non-agriculturist. Chuha Mal, a *sahukar*, purchased ·4 acre of garden land in the village at the same time. During the same period one of the Jats mortgaged an acre of land for Rs 45 with another Jat and soon redeemed it. The transfer of land in Kutabpur too began to take place just after the British occupation. The causes seem to be clear. On account of the peace, security and permanency of occupation introduced by the British *Raj*, land began to be considered as a valuable asset and consequently those people who did not care to hold any land before began to acquire it. The influence of the fact that a permanent and regular record-of-rights was made and kept and greater facilities for commerce and trade, credit and civilisation existed should also not be forgotten in this connection. The argument that the introduction of British *Raj* meant the introduction of agricultural poverty may be rejected on the face of it : the British had come only recently and their taxes were not heavier than those of the Sikhs. It is possible, also, that the early sales and mortgages were to some extent due to a heavy fall in prices which followed the British occupation.

Prices of Wheat and Maize from 1846-47 to 1859 60.

Year.	Wheat (in seers and chhataks) per rupee.		Maize (in seers and chhataks) per rupee.	
	Seers.	Ch.	Seers.	Ch.
1846-47	21	3	26	9
1847-48	31	8	48	0
1848-49	35	5	40	0
1849-50	21	14	26	0
1850-51	33	6	42	0
1851-52	40	13	...	
1852-53	44	4	57	0
1853-54	35	15	46	8
1854-55	48	5	64	0
1855-56	54	15	72	0
1856-57	36	14	33	11
1857-58	48	3	63	0
1858-59	52	2	...	
859-60	52	3	59	8

TABLE No. IV.

SHOWING THE NUMBER OF AGRICULTURISTS AND NON-AGRICULTURISTS, THE AREAS OF LAND IN THEIR POSSESSION, AND THE AVERAGE HOLDING IN BAIRAMPUR FROM 1852-53 TO 1918-19.

TABLE

Showing the number of Agriculturists and Non-Agriculturists, the areas from 1852-53

Year.	Jats (Agriculturists).				
	Number of owners.	Total area in possession in acres.	Average holding (on the total) in acres.	Cultivable area in possession in acres.	Average holding (on cultivable area) in possession.
1852-53	18	(a) 336	18·7	...	...
1868-69	28	(b) 333·6	11·9	...	...
1885-86	48	(b) 333·2	6·9	245·5	5·1
1890-91	50	(b) 333·8	6·6	278	5·5
1902-03	(c) 53	(b) 329·8	6·2	239·8	4·5
1912-13	(d) 50	(b) 329·8	6·6	230	4·6
1918-19	(e) 49	(b) 329·7	6·7	235·7	4·9
Total ...	296	2,325·9	63·6	1,229	24·6
Average	42·3	332·3	9·1	(g) 245·8	(g) 4·9

(a) The area of ·24 acre belonging to the Mussalman *muafidar* being treated as if it

(b) From 1868-69 to 1918-19 the area of the village has been treated as if it were out of the total area of the village. In calculating the cultivable area per owner, how-

(c) Two of the Jat occupancy tenants had turned into owners ; the real owners had

(d) One of the owners, originally an occupancy tenant, died.

(e) Both the owners, originally occupancy tenants, died, without leaving lineal

(f) Two Labana occupancy tenants purchased ·09 acre of land and became owners ;

(g) Average calculated for five periods only.

NOTE —None of the Jats

No. IV.

of Land in their possession, and the average Holdings in Bairampur to 1918-19.

Non-Agriculturists.			Total.				
Number of owners.	Area in possession in acres.	Average holding in acres.	Number of owners.	Total area in acres.	Average holding (on the total) in acres.	Cultivated area in acres.	Average holding (on cultivated area) in acres.
...	...	...	18	(a) 336	18·7	...	...
2	·4	·2	30	(b) 334	11·1	...	...
3	7·5	2·5	51	(b) 334	6·5	248	4·8
5	3·2	6·4	55	(b) 334	60·7	283	5·1
11	41·5	3·8	64	(b) 334	5·2	245·8	3·9
13	41·5	3·2	63	(b) 334	5 4	236	5·4
(f) 18	42·4	2·3	67	(b) 334	5	240	3·6
52	162·9	20·2	348	2,340	579·7	1252 8	22·8
74·3	23·3	2 9	49 7	334·3	82·8	(g) 250·5	(g) 4·6

belonged to owners.

334 acres ; the area of about 2 acres (1·8 acres) belonging to the *muafidars* being taken ever, 1·8 acres and not 2 acres have been deducted from the total area of the village.

made a "*hiba*" (gift) of their proprietary rights in their favour.

claimants and the lands reverted to the descendants of the original donor.

they have been included among the non-agriculturists in this table.

owns land outside the village.

The number of proprietors in the village in different years and the area cultivated or otherwise in their possession has been shown in Table No. IV (see pages 20-21) and the following conclusions may be drawn :—

(1) The pressure on land before the British occupation was less than what it was and has been afterwards.

(2) Since 1885-86 the number of Jat or agriculturist proprietors has been, on the whole, stationary.*

(3) As a corollary of the above, it may be observed that though the cultivable area of the village per owner varies, there is a tendency not to allow it to fall below a certain minimum. In 1918-19 it was 4·9.

(4) The percentage of the area in possession of the non-agriculturists was never high and that since 1902-03 it has been stationary.

(5) The number of non-agriculturist owners has been on the increase throughout so that the average area per head has been invariably falling.

(6) Taking the owners as a whole (and even the cultivators themselves) the cultivable area is small; and signifies a lot of pressure on the land; the average number of members per Jat family is 4·8 and the cultivable arĕa per owner is 4·9 acres.

Of the three villages, Daulowal,† Bairampur and Kutabpur, the people of Daulowal seem to be better off than those of Bairampur and the people of Bairampur than those of Kutabpur. If other things were taken as equal, a perusal of Table No. V on page 23 will show :—

(a) That the number of owners in Bairampur and Daulowal has been, on the whole, stationary since 1885-86.

(b) That the number of owners in Kutabpur nas slightly increased.

(c) Consequently the villages in which the number of proprietors is stationary are prosperous and a village in which it is on the increase is not.

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* For the reasons, please see the Chapter on Population.

† Figures for Mukimpur not obtained.

TABLE No. V.

Showing the number of Agriculturist Proprietors in † Bairampur, Kutabpur and Daulowal since 1885-86.

Year.	Number of Agriculturist proprietors in		
	Bairampur.	Dau	Kutabpur.
1885-86 ...	48	13	15
1890-91 ...	50	13	22
1902-03 ...	53	10	21
1912-13 ...	50	12	22
1918-19 ..	48	13	24
Total ...	246	61	104
Average ...	49	12	21

The same tale is told by the number of the holdings in these villages. A holding may be defined as "a share or portion of an estate held by one land-owner or jointly by two or more land-owners" (Douie's Settlement Manual, paragraph 398).

TABLE No. VI.

Showing the number of Proprietary Holdings owned by one or a larger number of owners in Mukimpur, Daulowal, Bairampur and Kutabpur.

		Mukimpur.	Daulowal.	Bairampur.	Kutabpur.
(a)	Number of proprietary holdings owned by a single owner	7	5	16	19
(b)	Ditto ditto 2 persons jointly	4	1	11	18
(c)	Ditto ditto 3 ditto	6	4	14	6
(d)	Ditto ditto 4 ditto	2	6	14	11
(e)	Ditto ditto 5 ditto	2	3	3	5
(f)	Ditto ditto more than 5 persons jointly.	2	12	5	7
	Total number of holdings ...	23	31	63	66
	Average area per proprietary holding (in acres) ...	9·3	13·1	5·4	6·4

The people of Mukimpur are better off than the people of the three other villages. Though no exact ratio can be established, yet a perusal of the Table No. VI (above), pertaining to the number of proprietary holdings, tends to establish the fact that the smaller the *number* of proprietary holdings in a village, the better off are the people. The figures with regard to the average *area* of proprietary holdings in the various villages seem to belie the generalisation. But if a proper allowance were made for the fact that a large part of Daulowal is cultivated by the people other than the owners and that in Kutabpur women do not help in the field work and the standard of cultivation is lower than what it is in the other villages the apparent discrepancy would vanish.

What has been said above does not seem to hold good if the *number* alone of the * cultivating holdings (Table No. VII below) were taken into consideration; Kutabpur with 165 holdings ought to stand second in prosperity. If, however, the area of an average cultivating holding were calculated (as it should be) on the basis of cultivable area in each one of the villages, Daulowal seems to stand first, the figures being—

Daulowal	1·4 acres.
Mukimpur	1·2 „
Bairampur	1·1 „
Kutabpur	1·0 acre.

TABLE No. VII.

Showing the number of Cultivating Holdings in Mukimpur, Daulowal, Bairampur and Kutabpur.

——	Mukimpur.	Daulowal.	Bairampur.	Kutabpur.
(*a*) Number of cultivating holdings cultivated by a single cultivator.	53	137	93	89
(*b*) Ditto ditto 2 cultivators jointly.	11	50	76	42
(*c*) Ditto ditto 3 ditto	12	18	25	9
(*d*) Ditto ditto 4 ditto	2	25	5	12
(*e*) Ditto ditto 5 ditto	2	1	1	6
(*f*) Ditto ditto more than 5 cultivators jointly.	2	7	4	7
Total number of cultivating holdings ...	82	238	204	165
Average area in acres on total area of the village ...	2·6	1·7	1·6	2·5
Average area in acres on cultivated area of the village...	1·2	1·4	1·1	1

---

* A share or portion of an estate *cultivated* by one cultivator or jointly by two or more cultivators. The table has been based on the *khana-i-kasht*, in the *jamabandi*, so that if a proprietary *jamabandi* holding was cultivated by, say, 3 persons, separately, it has been treated as 3 cultivating holdings.

But the percentage of area cultivated by occupancy tenants and tenants-at-will in these villages stands thus :—

Mukimpur	16·2
Bairampur	27·1
Daulowal	48·1

If an allowance were made for these facts, Daulowal will occupy a position other than the first.

On the basis of what has been said above, a generalisation may be made, with regard to these four villages, *viz* :—

Prosperity in these villages seems to vary (though no special ratio can be established) inversely with—

(*a*) the increase or decrease in the number of owners ;

(*b*) the number of proprietary holdings ;

(*c*) the area of cultivating holdings, if proper allowance is made for the difference in conditions with regard to cultivation, etc., in each one of the villages.

TABLE No. VIII.

Showing the number of Owners who own less or more than 3 acres of land, etc., in Bairampur.

——	Of all kinds.	Percentage on the total number of owners.	Of cultivated area	Percentage on the total number of owners.
(*a*) Number of owners who own less than 3 acres	37	55·2	37	55·2
(*b*) Ditto ditto between 3 and 5 acres	3	4·5	11	16·4
(*c*) Ditto ditto ditto 5 and 8 „	18	26·9	15	22·4
(*d*) Ditto ditto ditto 8 and 10 „	2	3	2	3
(*e*) Ditto ditto ditto 10 and 15 „	6	9	2	3
(*f*) Ditto ditto ditto 15 and 20 „	...	...	..	...
(*g*) Ditto ditto ditto 20 and 50 „	1	1·4	...	...
(*h*) Ditto ditto more than 50 acres	*Nil*	...	...	...

Analysing the figures relating to Bairampur further, as in Table VIII on page 25, it is noticed that more than 55 per cent of the owners own less than 3 acres of land or less than the average. There are only 28·4 per cent of owners who own 5 or more than 5 acres of cultivating land. No owner owns more than 15 acres of cultivated land, and there are six per cent only who own 8 or more than 8 acres of cultivated land. Highly prosperous peasantry and big landlords therefore exist not.

Taking the holdings as *actually* cultivated by owners the results may be tabulated as below* :—

(*a*)	Number of owners	who cultivate	less than	3 acres	.. 37
(*b*)	Ditto	ditto	between	3 and 5 acres	... 7
(*c*)	Ditto	ditto	ditto	5 „ 8 „	...19
(*d*)	Ditto	ditto	ditto	8 „ 10 „	... 3
(*e*)	Ditto	ditto	ditto	10 „ 15 „	... 1

The classification given above includes the area, cultivated out of the village, except in the case of the non-agriculturist Khatris and Brahmans. If, however, the area cultivated out of the village be excluded, the table will be modified slightly : two of the owners, now included under (*b*) and one under (*d*) shall be transferred to (*a*) and (*c*) respectively.

A further analysis of the table shows that—

A.—Of the 37 owners who cultivate less than 3 acres there are—

16 non-agriculturist, non-cultivating, non-resident landlords who get their lands cultivated through tenants-at-will.
2 Labanas who are occupancy tenants in the village and work as tenants-at-will too.
2 non-cultivating Jats.
3 who cultivate their own lands only.
2 who cultivate their lands only partly and get the rest cultivated through tenants-at-will.
6 who cultivate their own lands and also work as tenants-at-will *in* the village.

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* The classification includes those who do not actually cultivate and is due to the fact that certain areas are shown as "*khud kasht*" or "*kasht-malikan*", in the *jamabandi* even though the area itself is not ploughed or worked at all. The table includes both the agriculturist and the non-agriculturist owners.

3 who cultivate their own land and also work as tenants-at-will *out* of the village,

3 who cultivate their own land and also cultivate others' land as tenants-at-will *in* and *out* of the village.

B.—Of the 7 owners who cultivate between 3 and 5 acres of land—

2 cultivate their land partly and get the rest cultivated by the others.

1 cultivates his own land and also that of others as a tenant-at-will *in* the village.

3 cultivate their own land and also that of others as tenants-at-will *in* and *out* of the village.

1 partly cultivates and partly gets cultivated his land through tenants-at-will and also cultivates others' land as a tenant-at-will *out* of the village.

C.—Of those who cultivate between 5 and 8 acres.

1 cultivates his own land.

3 cultivate their land partly and get the rest cultivated through others.

8 cultivate their land and also work as tenants-at-will *in* the village.

4 cultivate their land and work as tenants-at-will *out* of the village.

2 cultivate their land and work as tenants-at-will *in* and *out* of the village.

1 cultivates the land only nominally and practically gets the whole of his land cultivated by others.

D.—Of the three owners who cultivate between 8 and 10 acres—

1 partly cultivates and partly gets cultivated his land through tenants-at-will.

2 cultivate their land and work as tenants-at-will *out* of the village.

E.—The one owner with an area between 10 and 15 acres cultivates his land himself.

The details given above may be summed up thus :—

(1) Those who do not cultivate, but get their land cultivated through others—

(*a*) Non-agriculturists ...	16	or 24	per cent.
(*b*) Agriculturists .	3	or 4·4	„
Total ...	19	or 28·4	„

(2) Those who partly cultivate their lands and get the rest cultivated through others—8 or 12 per cent.

(3) Those who cultivate their own lands only—

(*a*) Labanas ...		or 3	per cent.
(*b*) Jats ...	5	or 7·4	„
Total ...	7	or 10·4	„

(4) Those who cultivate their land and act as tenants-at-will—

(*a*) In the village ..	15	or 22·4	per cent.
(*b*) Out of the village ...	9	or 13·3	„
(*c*) In and out of the village	8	or 12	„
Total ...	32	or 47·7	„

(5) Those who cultivate their land and also get a part cultivated and also act as tenants-at-will out of the village ... ... 1 or 1·5 per cent.

The total number of owners who cultivate their lands partly or wholly is, therefore, 48 only or 70·6 per cent. But if the total number of those who actually cultivate, as owners, occupancy tenants or tenants-at-will, is taken into consideration they number 78. Classifying them as above, the results may be tabulated thus :—

(*a*) Number of cultivators who cultivate less than 3 acres—

(*i*) Cultivating owners ...	18	or 23	per cent.
(*ii*) Occupancy tenants ...	7	or 9	„
(*iii*) Tenants-at-will, who are neither occupancy tenants nor owners	19	or 24·4	„
Total ...	44	or 56·4	„

(*b*) Number of cultivators who cultivate between 3 and 5 acres—

(*i*) Cultivating owners ... 6 or 7·7 per cent.
(*ii*) Occupancy tenants ... 4 or 5·1 „
Total ... 10 or 12·8 „

(*c*) Number of cultivators who cultivate between 5 and 8 acres—

(*i*) Cultivating owners ... 19 or 24·4 per cent.
(*ii*) Occupancy tenants ... 1 or 1·2 „
Total ... 20 or 25 6 „

(*d*) Number of cultivators who cultivate between 8 and 10 acres—

All cultivating owners ... 3 or 3·8 per cent.

(*e*) Number of those who cultivate between 10 and 15 acres—

A cultivating owner ... 1 or 1·2 per cent.

Tenants—The occupancy tenants number 15. Two of them are Labanas (who are owners too of a small area) and the rest Gujars. Two of the Gujar occupancy tenants are women, getting their lands cultivated through tenants-at-will or relatives. So far as the latter fact is concerned, they have been treated as cultivators in the classification given above.

The number of tenants-at-will who own no land in the village and work 9·32 acres is 19. They may be classified as below :—

A.—*Village Menials* (owning no land in or out of the village)—

Class of Menials.	*Number.*	*Area cultivated in acres.*
Chamars	4	2·1
Barbers	1	·06
Potters	1	·15
Fakirs	1	·06
Weavers	1	·15
Total	8	2·52

B.—Outsiders—

	Number.	*Area cultivated in acres.*
Arains	4	3·7
Chamars	2	·7
Gujars	3	·5
Jats	2	1·9
Total	11	6·8

With the help of *jamabandi* alone, it is not easy to tabulate or measure the length of the period of tenancy. A *jamabandi* of the village is prepared every four years. In the interim a man may work as a tenant-at-will, say for two years, and though a record is made in the *khasra-i-girdawari*, his name may never appear in the *jamabandi*. Verbal enquiries tend to show that changes among the tenants-at will, in the village itself, are frequent. The period of tenancy, as a perusal of the table below will show, among the outsider tenants-at-will is, sometimes, comparatively longer :—

Name of the owner.	Name of the tenant.	From year	To year
Gursahai ...	Alu, Rain ...	1914-15	1918-19.
Rala	Allah Ditta, Rain ..	1914-15	1918-19.
	Sharfu, Rain ...	1910-11	1914-15 and then Miru, Rain
Khushala, Jhallu and others.	Umra, Mirasi	1902-03	And never again.
	Sharfu Rain ...	1906-07	1914-15.
Raju	Toui, Barber ..	1902-03	Afterwards *khud-kasht*.
Ganda	Jangu ...	1914-15	1918-19.
	Alu, Rain ...	1914-15	1918-19.

It is clear therefore that the length of the period of tenancy, for more than 8 years, is quite rare and that, generally speaking, those tenants-at-will who cultivate small areas are changed frequently. The same tale is told by Table No. VIII-A (page 31).

Table No. IX (page 32) gives an idea with regard to the proportion of cultivable land worked by the owners themselves and the various kinds of tenants, including the owners who cultivate as tenants-at-will or occupancy tenants. It is interesting to note that the area cultivated by owners, as owners, has either been stationary or on the decrease and that the area cultivated by tenants paying rents in cash and kind has been on the increase since 1890-91.

TABLE No. VIII-A.

Showing the cultivation of some plots for a number of years.

Name of Owner.	Year.	Name of Tenant.	Year.	Name of Tenant.	Year,	Name of Tenant.	Year.	Name of Tenant.
Ganda	1902-03	Bhulla, Chamar ...	1906-07	Bhulla, Chamar ...	1910-11	Shian, Chamar...	1919	*Khud kasht.*
		Umra, Mirasi ...	...	Devia, Chamar ...	...	*Khud-kasht.*		
Bir Chand and Puran	1906-07	Sandha, Gujar ...	1910-11	Labhu, Chamar ...	1914-15	Alla Ditta, Gujar	1918-19	Manu, Rain.
Chabi	1898-99	Surmukh ...	Up to 1906-07	Surmukh	and then	never again.		
Bhaju	1906-07	Ganda ...	1910-11	Alla Ditta, Gujar	1914-15	Rabal, Gujar ...	1918-19	Alla Ditta, Gujar.
Mangal and Jawahar ...	1906-07	*Khud-kasht* ...	1910-11	Ali Bakhsh, Gujar	1914-15	Ali Bakhsh, Gujar.	1918-19	Rehma and Rukku.
Labhu	1906 07	Sandha, Gujar ..	1910-11	Ditto	1914-15	Shian, Chamar	1918-19	Ali Bakhsh, Gujar.

TABLE No. IX.

Showing the proportion of Cultivated Area cultivated by the Owners and the various kinds of Tenants in Bairampur from 1890-91 to 1918-19.

Year.	Total area cultivated.	Area cultivated by owners.	Area cultivated by occupancy tenants.	Area cultivated by tenants free of charge or at nominal rates.	AREA CULTIVATAD BY TENANTS-AT-WILL.		
					Paying at revenue rates with or without *malikana*.	Paying at *batai* rates.	Paying cash rents.
1890-91 ...	283	226	23	10	1	17	6
1894-95 ...	214	154	24	9	3	20	4
1898-99 ...	247	188	32	2	...	19	6
1902-03 ...	246	192	23	6	...	22	3
1906-07 ...	248	178	22	4	...	35	9
1910-11 ...	238	170	21	2	...	34	11
1914-15 ...	236	158	21	2	1	46	9
1916-19 ...	240	153	23	8	...	42	14

B.—Fragmentation of Holdings.

The fragmentation of holdings is great indeed, but as a perusal of the table below will show, it is interesting to note, that it is less than what it was in the past, and the number of fragments * rises as well as falls —

Year.		*Number of fragments.*	*Average area of a fragment in acres.*
1851-52	...	605	·54
1884-85	...	1,236	·27
1890-91	...	1,517	·225
1894-95	...	1,752	·18
1898-99	...	1,632	·20
1902-03	...	1,736	·181
1906-07	...	1,740	·181
1910-11	...	1,546	·216
1914-15	...	1,582	·212
1918-19	...	1,598	·210

After the British occupation when a regular record-of rights began to be made and kept there set in a tendency toward the breaking up of joint-families and the consequent division of land. Sometimes, even when the individuals worked jointly, they divided their property in land. One instance of such a case still exists in the village. After 1884 the *shamilat deh* too were divided and the rather irregular division of the land increased the number of fragments. The Hindu Law of property too favoured the process. The *choh* also was and is responsible for the fragmentation to a great extent: every one desires to possess land in the portion of the village safe from the attacks of the *choh*, so that there is greater fragmentation in that part than it is elsewhere. Human nature and mutual jealousy too played their part: every one desired to have a share in every piece of land to which he could lay claim, even at the risk of making the working of the whole, including his own share, rather uneconomic. Two forces worked for consolidation of the fragments. The first consisted in the occasional exchange of plots among the zamindars and the second, the most potent, consisted in the dying out of a number of people without leaving any children. The consequence of the latter was that a number of plots amalgamated as it were with the others, and thus reduced the number of fragments. Later on another tendency set in: even when division took place amongst the members of a family, uncultivable barren plots were not divided, but kept as joint property. Sometimes, although, the families separated and worked on different pieces of land, a formal division was never made and consequently not recorded.

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* The figures in the table refer to "*Jamabandi*-fragments."

The extreme fragmentation of land and of proprietary and cultivating holdings has been explained and shown in Tables Nos. X and XI. Dr. Mann has complained of the extreme fragmentation of land in Pimpla Saudagar, in the Bombay, Deccan.* In Bairampur the evil out-Herods Herod. A comparison of the conditions prevailing in the two villages will not be out of place and may be made thus:—

Pimpla Saudagar.	*Bairampur.*
1. The area of the village was 1,065 acres and there were 156 land-owners.	1. The area of the village is 336 acres and there are 67 land-owners.
2. Area of the largest holding was over 40 acres.	2. Area of the largest holding is under 40 acres.
3. The smallest holding measured ·075 acres.	3. The smallest holding measured ·06 acres.
4. The largest plot measured 21·5 acres.	4. The largest plot measured 1·4 acres.
5. The smallest plot measured ·05 acres.	5. The smallest plot measured ·01 acres.

***Land and Labour in a Deccan Village, pages 47—48.**

Pimpla Saudagar.	*Bairampur.*
6. The largest number of plots in a holding numbered 20.	6. The largest number of plots in a holding numbered 88.
7. The number of holdings with 1 to 5 fragments was 66·4 per cent.	7. In Bairampur the number of such holdings was 11·42 per cent.
8. The highest percentage was that of the holdings with 2 to 5 fragments : 53·6.	8. The highest percentage is that of the holdings with 31 to 35 fragments : 28·5.
9. There were no holdings with more than 25 fragments.	9. The percentage of holdings with more than 25 fragments is about 82·87.
10. Cultivating holdings with 1 to 5 fragments numbered 52·3 per cent.	10. Cultivating holdings with 1 to 5 fragments number 41·18 only.
11. Cultivating holdings with 6 to 10 fragments numbered 31·2 per cent.	11. Cultivating holdings with 6 to 10 fragments number 5·41 per cent only.
12. Cultivating holdings with more than 25 fragments numbered 0·9 per cent.	12. Cultivating holdings with more than 25 fragments number 34·51 per cent.
13. The number of actual cultivators was 109.	13. The number of actual cultivators of all kinds was 78.

The evil results of this unfortunate state of affairs need hardly to be pointed out. The loss in time and energy involved in passing from one field to another must be great indeed. A proper watch cannot be kept over the fields, and though thefts are rare, they are not totally absent, especially during the period when fodder is scarce. That the absence of *pacca* masonry wells is due to the extreme fragmentation of land has already been referred to in the Chapter on Irrigation (Chapter I). Sometimes the number of fragments is so large that the cultivator himself does not know as to how many he possesses. Labhu was actually questioned and found unable to tell. The *Jamabandi* for 1918-19 shows that 3 plots measuring ·09, ·06 and ·014 acres respectively were cultivated by the people other than the owners and the owners never knew of it. The boundaries of the fields cannot be properly marked and unfortunate quarrels and law suits often result. A large acreage on the whole of cultivable area is not worked for marking off the boundaries. The zamindar is not totally ignorant of the evil effects of fragmentation. In the action of the *choh* lies the greatest hinderance to the consolidation of holdings. The

TABLE No. X.

Showing the fragmentation of proprietary holdings in Bairampur.

HOLDERS OF		Number of holders with number of plots.	Average area of a holding.	Largest holding	Smallest holding	Largest plot.	Smallest plot.	REMARKS.
1 plot	...	9	·1	·24	·06	·24	·06	Includes the Mussalman muafidar, 18 non-agriculturists in groups of 3 and 2 labanas.
2 plots	...	1	1·4	1·4	1·4	1·07	·33	The Hindu muafidar.
5 ,,	...	4-J*	1·15	1·15	1·15	·4	·02	Four non-agriculturists jointly.
6 ,,	...	4-J	1·14	1·14	1·14	·4	·02	Ditto.
7 ,,	...	2-J	1·17	1·17	1·17	·3	·02	Two non-agriculturists jointly.
27 ,,	...	3-J	4·4	4·4	4·4	·41	·03	Three agriculturists jointly.
28 ,,	...	1	4·7	4·7	4·7	·24	·04	
29 ,,	...	1	4·5	4·5	4·5	·32	·01	
30 ,,	...	1	5·4	5·4	5·4	·5	·06	
31 ,,	...	5	4·9	5·6	4·0	·9	·01	
32 ,,	...	4	4·7	5·3	4·1	·47	·01	
33 ,,	...	3-J	4·1	4·1	4·1	·32	·02	Joint holding.
34 ,,	...	1	14·7	14·7	14·7	1·21	·05	
35 ,,	...	1	5·1	5·1	5·1	·2	·04	
36 ,,	...	2-J	12·6	12·6	12·6	·6	·01	Joint holding.
37 ,,	...	3-J	5·1	5·1	5·1	·25	·04	Do.
38 ,,	...	4-J	14·21	14·21	14·21	1·2	·23	Do.
40 ,,	...	2-J	5·8	5·8	5·8	·4	·04	Do.
46 ,,	...	1	11·5	11·5	11·5	1·4	·05	Do.
47 ,,	...	4	11·5	14·5	9·3	·9	·02	Two joint, others separate.
48 ,,	...	2-J	9·12	9·12	9·12	·8	·05	Joint holding.
50 ,,	...	2-J	9·7	9·7	9·7	·81	·03	Do.
52 ,,	...	1	10·3	10·3	10·3	·5	·05	
55 ,,	...	2-J	13·9	13·9	13·9	·8	·02	Joint holding.
57 ,,	...	2-J	10·3	10·3	10·3	·6	·04	Do.
71 ,,	...	8	20·4	20·4	20·4	1·2	·02	
88 ,,	...	3-J	39·7	39·7	39·7	3·1	·01	Joint holding.

* J denotes a joint holding.

TABLE No. XI.

Showing fragmentation of proprietary and cultivating holdings.

NUMBER OF FRAGMENTS.	FRAJMENTATION OF			
	(1) *Holdings.*		(2) *Cultivation.*	
	Number with specified number of fragments.	Per cent. of total.	Number with specified number of fragments.	Per cent. of total.
1 to 5 fragments	4 *	11·42	23	41·81
6 to 10 „	2 *	5·71	3	5·41
11 to 15 „	...	...	2	3·62
16 to 20 „	...	...	...	...
21 to 25 „	...	...	8	14·54
26 to 30 „	4	11·42	8	14·54
31 to 35 „	10	28·5	6	10·90
36 to 40 „	3	8·5	2	3·63
41 to 45 „	...	...	...	...
46 to 50 „	7	20	...	...
51 to 55 „	2	5·71	...	...
56 to 60 „	1	2·85	2	3·63
61 to 65 „	...	...	...	...
66 to 70 „	...	...	...	...
71 to 75 „	1	2·85	...	...
76 to 80 „	...	...	...	...
81 to 85 „	...	...	...	...
86 to 90 „	1	2·85	...	...
91 to 100 „	...	...	...	...
Over 100 fragments	...	...	1	1·81

* The non-agriculturist and labanas.

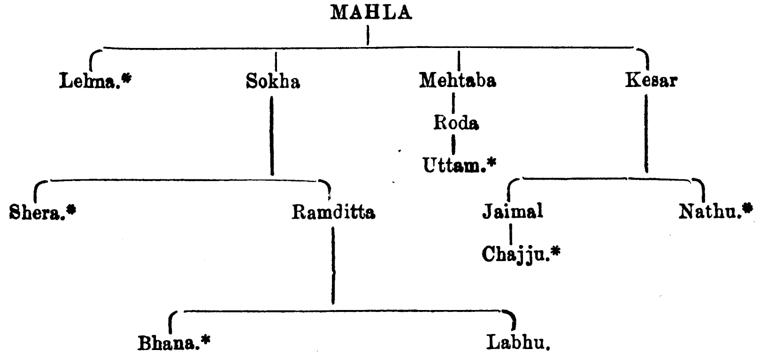
NOTE.—The table does not include the holdings of the 2 muafidars who own 3 plots.

area of land safe from the action of the *choh* is small and yet every one (naturally enough) desires to possess as much of land as possible, in that portion. The land near the *choh* is not safe, and even though it be of good quality if once the *choh* happens to run over it, it will leave *age sona pichhe pital*: gold before and brass behind. Much could be done, however, through education and co-operation.

APPENDIX TO CHAPTER II.

Below has been made an attempt, by tracing the history of a family, to explain the manner in which the number of holdings and fragments increases and decreases in Bairampur. Mahla's family has been selected for the purpose.

As has already been mentioned on page 16, Mahla's family was allotted three-fourth ploughs of land. The area of the land was 336 acres and the number of *Hals* under which land was divided was 11. On an average the area under each plough was, therefore, 30·5 acres and Mahla's share 22·9 acres. The area actually in possession of Mahla's family was, however, 21·487 acres including their share in the *shamilat deh*, and 14·852 acres excluding the *shamilat*.



NOTE.—* denotes died childless.

Mahla was no longer alive in 1852, and the same was the case with his eldest son Lehna. The three representatives of the family, Kesar, Mataba, and Sokha, held about 14·852 acres of land exclusive of the *shamilat deh*. The plots numbered 33 and the holding was probably joint, though in the settlement records certain number of plots were shown separately too (see the map). The *Jamabandi* for 1868-69 shows that division had taken place and the shares stood thus :—

Sokha ...	5·28 acres in	24	*Jamabandi*	fragments.
Kesar ...	5·22 „ „	23	do.	do.
Mataba ...	5·29 „ „	22	do.	do.

Before separation all the three had mortgaged and redeemed about an acre of land for Rs. 45.

Before 1884 all the three had died and a new generation had stepped into their shoes. Ram Ditta alone represented Sokha's line. Roda, who represented his father Mataba, mortgaged the whole of his share, about 5·7 acres, for Rs. 686 with a sahukar and passed the rest of his life as a tenant-at-will of the *sahukar* and others. Kesar had left two sons, Nathu and Jaimal, and they lived jointly. On account of the division of the *shamilat* among the villagers, the family estate increased by about 2·37 acres. They held in 1885-86 respectively—

Ram Ditta ...	5·65 acres in	32	fragments.
Roda ...	5·64 „ „	34	„
Nathu and Jaimal	5·95 „ „	37	„

(Please see the map).

Ram Ditta died between 1884 and 1890 and his sons, Labhu and Bhana, inherited his estates. On a further division of the *shamilat deh*, 1894-95, each one of them got an accession to his share, which stood thus—

Labhu and Bhana ...	6·59 acres in	40	fragments.
Roda ...	6·53 „ „	42	„
Nathu and Jaimal ...	6·89 „ „	42	„

On Jaimal's death in 1894-95, his son Chhajju succeeded him. He mortgaged 3 acres of land for Rs. 40 in 1895 and redeemed the same in 1898-99, the year when his uncle Nathu died childless and left the whole estate to him. The same year he, *i.e.*, Chajju, again mortgaged 12 acres of land for Rs. 42. He died childless in 1909 and his lands and liabilities were inherited by Labhu and Bhana. The same was the case with the lands and liabilities of Uttam (who had succeeded his father Roda in 1902-03), whose lands were still under mortgage and who died in 1908-09.

In 1894, Bhana, a poppy drinker and bachelor, thought of going a-wooing and mortgaged about 12 kanals of land for Rs. 240. The money was soon gone and the marriage never took place, and he himself died in the beginning of 1914. Labhu redeemed the land partly in 1903 and partly in 1906.

Thus by 1910, all the land belonging to the Mahla family was possessed by Labhu and Bhana and after 1914 by Labhu alone. In 1910-11 they owned 20·03 acres of land. During the survey operations of 1910-11 they lost about ·023 acres. They redeemed Chajju's land in 1911 for Rs. 42. In 1914 Roda's land too was redeemed. In 1918-19 Labhu owned 20·01 acres of land, not an inch of which was under mortgage. The number of *Jamabandi* fragments was 103 and of actual fragments 61. The total cultivable area measured 14·6 acres, of which 4·84 acres was cultivated by tenants-at-will. (Please see the maps.)

CHAPTER III.—IMPLEMENTS AND MANURES.

Implements.

Below is given a list of the implements in common use. They are simple and primitive. The total cost of the implements is about Rs. 22-2-0, but making an allowance for the fact that each zamindar often owns more than one *khurpa, datri* and *baguri,* the cost of all the implements may be estimated at about Rs. 30 and the annual cost of replacement at about Rs. 9-8-9. The old wooden *belna*—sugar-cane press—has been replaced by the *lot ka belna*; two or three roller iron mill, and there are 11 such mills in Bairampur. The other improved implements are conspicuous by their absence. A Rajput owns a Meston and a Rajah plough in Daulowal. On account of the lack of strong and efficient cattle, the Rajah plough is never worked and the Meston plough is used only occasionally. Ignorance, the extreme fragmentation of holdings, and lack of capital and good plough cattle are mainly responsible for the absence of improved implements. Much could be done through co-operation. But since joint possession is apt to breed quarrels, the zamindar is not anxious to possess and work the implements or the cattle jointly.

Machines run by power other than that of cattle or man are not known at all and unless the holdings were consolidated and made larger, or the society developed so highly as to work smoothly on co-operative lines, it is questionable if the possession and running of such machines could be made economic.

A List of Common Agricultural Implements.

Name of implement.	Period it lasts.	Cost.			Use.	By whom made
		Rs.	A.	P.		
1. Kehi or kasi (spade) ...	2 years	2	0	0	Digging ...	Iron and coal being supplied by the zamindar it is prepared by the lohar as a part of his contract. Wood being provided, the handle is prepared by the carpenter as a part of his contract.
2. Kulhari (axe)	5 to 6 years ...	1	8	0	Chopping wood ...	As in number 1.
3. Dat (sickle without teeth) ...	Ditto ...	1	4	0	Cutting wood ...	Ditto.
4. Hal (plough)	1 to 2 years ...	1	4	0	Ploughing ...	Wood being supplied, prepared by the carpenter as a part of his contract.
5. Ploughshares	6 months ...	0	12	0	Ditto ..	Iron and coal supplied by the zamindar and prepared by the lohar as a part of his annual contract.
6. Panjali	3 to 4 years ...	1	0	0	Yoking the cattle ...	As in No. 4 above.
7. Ropes	2 years ..	1	8	0	For yoking and tying ...	Prepared at home. San raised at home; if not, purchased.
8. Sohaga (clod-crusher) ...	3 years ...	2	0	0	For levelling the ground after sowing.	As in No. 4 above.
9. * Karah (earth board) ...	5 to 8 years ...	4	0	0	Clearing and levelling the ground.	Ditto.

10.	Poru (tube)	4 years	0	6	0	For sowing with the plough.	Purchased.
11.	Ramba or khurpa	6 months	0	4	0	For hoeing	As in No. 1 above.
12.	Baguri (hoe)	2 years	0	8	0	Ordinary hoeing	Ditto.
13.	Baguri (hoe for sugar-cane)	1 year	0	8	0	Hoeing sugar-cane	Ditto.
14.	Dati or datri (Sickle)	6 months	0	4	0	Cutting the crops and grass.	Ditto.
15.	Gandasa (Chopper)	2 years	0	12	0	Chopping fodder	Ditto.
16.	Tanguli (four pronged fork)	5 years	0	4	0	Collecting bhusa at the threshing floor.	As in No. 4 above.
17.	Sangi (two pronged fork)	2 years	0	3	0	Scattering the stalks when placed on the threshing floor.	Ditto.
18.	Phaora (rake)	3 to 4 years	0	2	0	Removing dung from the cowshed.	Ditto.
19.	Tangar (rope net)	3 to 4 years	3	0	0	For carrying bhusa	Made at home or by the chamar.
20.	Phala (made of tough but elastic twigs and branches).	1 year	0	4	0	Framework drawn by oxen for treading corn.	As in No. 4 above and made by the zamindar.
21.	Chhaj (winnower)	1 year	0	4	0	Winnowing	Purchased from the chuhras.
22.	Tokra (basket)	6 months	0	3	0	Basket for carrying produce or manure.	Made at home or sometimes purchased.
23.	Chhikli (muzzle)	6 months to 1 year	...			Muzzling the oxen	Made at home.

* Not owned by every one.

MANURES.

The manure in nearly all cases consists of dung of all sorts, nightsoil, sweepings and refuse from the house. Sometimes the ashes of burnt leaves and plants are used for manures. When the soil is very poor and manure is wanting, green manuring is tried. Usually hemp is sown and when the plants are young and green, the land is ploughed. Sometimes herds of sheep and goats are made to spend several nights in the fields, in payment for which service, the goat-herd dines at the farmer's house and sometimes gets money as well. The urine of cattle is not utilized during the summer and the rainy season. During the winter season when the cattle are kept under roof at night, dry leaves are spread over the floor and when sufficiently soaked they are removed and replaced by a fresh lot.*

There is a universal cry with regard to the scarcity of manure. A pair of oxen does not produce more than 10 to 12 *gaddas* of manure annually and on an average, the zemindar does not get manure for more than one or two acres of land. The common complaint that the yields from the soil have decreased of late may be due to its partial exhaustion, through the lack of manures, for a large percentage of the land under plough is sown without sufficient or, sometimes, any manure. The loss of manure on account of the use of cow-dung cakes is never realised. Making a moderate estimate at the rate of 2 *gaddas* per annum per family, the loss of manure, in Bairampur alone, would amount to about 150 *gaddas*. The method of collecting the manure is also defective. It is often kept in heaps over the ground. Whenever it rains, a portion is carried away. Again as soon as thrown or placed in heaps in the fields it is not ploughed in at once and consequently loss is suffered in the quality as well as the quantity of manure. People act co-operatively so far as the carriage and the throwing of manure in the fields is concerned; it will be to their interest if they carried the system a step further and ploughed in what they carried.

Bone-meal as a manure is not used at all, and the causes consist in ignorance, the difficulty of crushing the bones and converting them into meal, caste prejudices and the lack of initiative and enterprise. Chemical manures are totally unknown, though on account of the prevailing high prices, it is possible, nay probable, that their use could be spread and prove to be economic.

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* Last year (1918) they made an experiment in Daulowal. When the leaves got sufficiently soaked with urine, they were not removed, but a fresh lot was spread over them. The quality and quantity of manure obtained was much better, but owing to the fact that the room smelt "awfully bad," the practice was given up and never repeated.

APPENDIX TO CHAPTER III.

Ploughing of a Jat as compared with that of a Rajput—

A Rajput of Kutabpur and a Jat of Mukimpur were kept under observation while ploughing and the following results were obtained :

Rajput.

Ploughing a piece of *maira* land for sowing wheat for the fifth time.

Plough.—The various parts measured as given in the sketch attached.

Cattle.—1 ox worth Rs. 56 aged 4 years.

1 male-buffalo worth Rs. 45 aged 6 years.

The *kili* or peg, regulating the depth of ploughing to some extent, being in the *third* hole—

Average length of the field	229 feet
Average breadth „ „ „	15 ft. 6 inches.
Average depth of a furrow	3·5 inches.
Average breadth „ „ „	7·25 inches.
Number of furrows made lengthwise ...	22.

Jat.

Ploughing a piece of *maira* (slightly *retar*) land for the 5th time for sowing wheat.

Plough—about the same as above.

Cattle—1 ox worth about Rs. 100 aged between 5 and 6 years.

1 ox worth about Rs. 45 aged 10 years.

The *kili* or the peg, regulating the depth of ploughing to some extent being in the *second* hole—

Average length of the field ...	... 629 feet
Average breadth „ „ „ ...	... 16 feet
Average depth of a furrow ...	... 4·1 inches.
Average breadth „ „ „ ...	... 7 inches.
Number of furrows made ...	... 27.

If the data given above represent the normal state of affairs, it is clear that *one of the causes* of a Rajput cultivator's poverty consists in his own *negligence and inefficiency,* for—

(*a*) Twenty-two furrows each of 7·25 inches average breadth, would overturn about $\frac{22 \times 7{\cdot}25}{12}=13{\cdot}3$ feet, or (making an allowance of ·7 inches) 14 feet of land, breadthwise, and not the whole of 15 feet and 6 inches. In the Jat's case, it may be noticed that 27 furrows, each (on an average) 7 inches broad would overturn about $\frac{27 \times 7}{12}=15{\cdot}8$ feet or (making an allowance of ·2 feet) about 16 feet, the average breadth of the field. It is clear therefore that while a Jat *overturns the whole of the field while ploughing a Rajput does not do so.*

(*b*) Even if a doubt existed with regard to (*a*), the difference in the *depth* of ploughing, 3·5 inches in the case of a Rajput and 4·1 inches in that of a Jat, will lead to a difference in the yields, other things being equal.

CHAPTER IV.—CROPS AND THEIR ROTATION.

Tables Nos. XII and XIII show the percentage of the areas under various crops, 5 years before and during the period of the war, in Bairampur. The annual rise and fall of the acreage under wheat, maize, cotton, sugar-cane and fodder and their relations with the prices, in all the four villages, has been depicted in the graphical representations attached for the reader's perusal. No special comments need be made therefore, but it may be noticed in passing, that in spite of the high prices of Indigo, it was sown only once in Bairampur and in none of the other three villages under consideration.

The important crops raised are—

A—Rabi Crops.

Wheat.—The common wheat grown is a reddish bearded variety called the *Kathi.* Other varieties are also cultivated, though not so frequently and largely. Pusa No. 10 is popular to some extent in Daulowal, but not in Bairampur. The Jats of Mukimpur consider it a failure. It is admitted on all hands that the yield of Pusa No. 10 is greater than that of any other variety tried. But there are said to exist two drawbacks. As soon as the crop is ready, it must be cut down and collected at once. If there takes place a considerable delay in doing so a slight wind or rain, makes the grain fall to the ground. Secondly, the Bhusa yielded is neither good nor large in quantity.

The number of ploughings given for wheat depends on the quality of the soil and the crop that precedes it.

Roughly speaking, it may be tabulated thus :—

Kind of soil.	*Number of ploughings on ek-fasli land.**	*Number of ploughings on do-fasli land.* †
Sailab	10 to 15	3 to 7
Niain	8 to 12	3 to 5
Maira	6 to 10	2 to 4

Retar.—No particular attention is paid and the number of ploughings given depends on convenience and the rains. Sometimes it may be ploughed only once and the seed cast.

---

* Ek-fasli—Land on which only one crop is raised.
†Do-fasli—Land on which two crops are raised.

TABLE

Showing the area under different kinds of crops

Crops.	No.	Crops.	1909-10.							
			Chahi.		*Abi.*		*Barani.*		*Total.*	
			Matured area.	Kharaba.	Matured area.	Kharaba.	Matured area.	Kharaba.	Matured area.	Kharaba.
KHARIF.	1	Rice	...	...	...	...	2	...	2	...
	2	Maize	...	...	...	...	17	3	17	3
	3	Bajra	...	...	...	...	...	...	..	...
	4	Til	...	...	...	...	...	1	...	1
	5	Sugarcane	...		...	...	49	1	49	1
	6	Cotton	...	...	...	...	8	1	8	1
	7	Indigo	...	...	...	...	...	...	...	...
	8	Fruits	...	...	...	...	...	7	...	7
	9	Vegetables	...	...	...	...	...	...	...	...
	10	Fodder	...	...	..	...	37	1	37	1
	11	China and others ...	...	...	...	...	1	1	1	1
	12	San-hemp	...	...	...	...	16	3	16	3
	13	Pulses	...	...	...	...	12	1	12	1
	14	Total cropped	...	...	...	...	142	...	142	...
	15	Total kharaba	...	..	...	...	...	19	...	19
	16	Total sown	..	...	...	...	161		161	
	17	Percentage of kharaba on sown.	...	...	...	...		...	11·801	
RABI.	18	Wheat	...	...	...	..	90	3	90	3
	19	Barley	...	...	...	...	9	...	9	...
	20	Wheat and gram ...	...	...	...	...	7	...	7	...
	21	Gram	...	...	...	...	...	...	...	...
	22	Tobacco	...	...	...	...	...	...	...	...
	23	Barley and masar ...	...	...	...	...	3	...	3	...
	24	Vegetables	...	...	...	...	...	...	...	...
	25	Fodder	1	...	7	...	5	1	13	1
	26	Wheat and barley ...	...	...	...	...	...	...	...	...
	27	Sarshaf	...	...	...	...	7	...	7	...
	28	Pulses	...	...	...	...	...	...	...	...
	29	Total cropped	1	...	7		121	...	129	...
	30	Total kharaba	...	...	...	...	...	4	...	4
	31	Total sown	1	...	7	...	125		133	
	32	Percentage of kharaba on sown.	...	...	...	...	...	...	3·007	
	33	Total cropped area ...	1	...	7	...	263	...	271	...
	34	Total kharaba	...	...	...	...	...	23	...	23
	35	Total sown	1	...	7	...	286		294	
	36	Percentage of kharaba on sown.	...	...	...	...	..	...	7·82	
	37	Percentage of cropped on cultivated area.	...	...	...	...	...	...	93·53	

No. XII.

in Bairampur, from 1909-10 to 1913-14.

1910-11.							
Chahi.		*Abi.*		*Barani.*		*Total.*	
Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
...	...	...	...	3	...	3	...
...	...	...	...	10	9	10	9
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	58	2	58	2
...	...	...	...	2	1	2	1
...	...	...	...	...	...	...	...
...	...	...	...	9	6	9	6
...	...	...	...	...	...	...	...
...	...	...	...	36	1	36	1
...	...	...	...	1	2	1	2
...	...	...	...	18	3	13	3
...	...	...	...	2	1	2	1
...	...	...	...	184	...	184	...
...	...	...	...	...	25	...	25
...	...	...	...	159		159	
..	...	...	...	...	...	15·72	
...	...	...	...	88	4	88	4
...	...	...	...	7	1	7	1
...	...	...	...	2	...	2	...
...	...	...	...	...	...	...	...
...	...	...	...	1	...	1	...
...	...	...	...	...	...	...	...
...	...	...	...	3	...	3	...
...	...	...	...	14	2	14	2
...	...	...	...	...	...	...	...
...	...	...	...	5	...	5	...
...	...	...	...	...	...	...	...
...	...	...	...	115	...	115	...
...	...	...	...	...	7	...	7
...	...	...	...	122		122	
...	...	...	...	...	...	5·73	
...	...	...	...	249	...	249	...
...	...	...	...	...	32	...	32
...	...	...	...	281		281	
...	...	...	...	...	...	11·35	
...	...	...	...	...	...	88·61	

TABLE

Showing the Area under different kinds of Crops

Crops.	No.	Crops.	1911-12.							
			Chahi.		*Abi.*		*Barani.*		*Total.*	
			Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
KHARIF.	1	Rice	...	...	...	...	2	1	2	1
	2	Maize	...	...	...	...	12	4	12	4
	3	*Bajra*	...	...	...	...	...	...	...	...
	4	*Til*	...	...	...	...	...	...	...	...
	5	Sugarcane	...	...	...	...	60	15	60	15
	6	Cotton	...	.	...	...	4	2	4	2
	7	Indigo	...	...	...	...	...	...	...	...
	8	Fruits	...	...	...	...	...	...	...	...
	9	Vegetables	...	...	...	...	...	...	...	...
	10	Fodder	...	...	...	.	32	4	32	4
	11	*China* and others	...	...	...	...	2	1	2	1
	12	*San*-hemp	...	...	...	...	9	2	9	2
	13	Pulses	...	...	...	...	4	...	4	...
	14	Total cropped	...	...	..	...	125	...	125	...
	15	Total *kharaba*	...	...	...	...	...	29	...	29
	16	Total sown	...	...	...	...	154		154	
	17	Percentage of *kharaba* on sown.	...	...	...	...	...	...	11·801	
RABI.	18	Wheat	...	...	...	...	86	4	86	4
	19	Barley	...	...	...	...	9	...	9	...
	20	Wheat and gram	...	...	...	...	...	...	...	...
	21	Gram	...	...	...	...	...	...	...	...
	22	Tobacco	...	...	...	...	..	...	...	...
	23	Barley and *masar*	...	...	...	...	1	...	1	..
	24	Vegetables	...	...	...	...	2	...	2	...
	25	Fodder	...	...	12	...	8	1	20	1
	26	Wheat and barley	...	...	...	...	...	...	...	...
	27	*Sarshaf*	...	...	...	...	2	...	2	...
	28	Pulses	...	...	...	...	1	...	1	...
	29	Total cropped	...	...	12	...	109	...	121	...
	30	Total *kharaba*	...	...	...	...	...	5	...	5
	31	Total sown	...	...	12	...	114		126	
	32	Percentage of *kharaba* on sown.	...	...	...	...	...	...	3·93	
	33	Total cropped area	...	...	12	...	234	...	246	...
	34	Total *kharaba*	...	...	...	...	...	34	...	34
	35	Total sown	..	...	12	...	268		280	
	36	Percentage of *kharaba* on sown.	...	...	...	...	.	...	12·14	
	37	Percentage of cropped on cultivated area.	...	...	...	...	...	...	87·85	

No. XII—CONTINUED.

[illegible] *Bairampur, from 1909-10 to 1913-14*—continued.

1912-13.							
Chahi.		*Abi.*		*Barani.*		*Total.*	
Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
...	...	...	...	1	1	1	1
...	...	...	...	11	2	11	2
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	57	7	57	7
...	...	...	...	13	1	13	1
...	...	...	...	...	...	...	...
...	...	...	...	13	...	13	...
...	...	...	...	...	...	...	...
...	...	...	...	32	2	32	2
...		...	...	1	...	1	...
...	...	...	...	9	4	9	4
...	...	...	...	3	1	3	1
...	...	...	...	140	...	140	...
...	...	...	...	...	18	...	18
...	...	...	...	158		158	
...	...	...	...	...	...	11·39	
...	...	...	...	76	5	76	5
...	...	...	...	8	1	8	1
...	...	...	...	2	...	2	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	1	...	1
...	...	...	...	3	...	3	...
8	...	2	...	...	...	10	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...
8	...	2	...	89	...	99	...
...	...	...	...	...	7	...	7
8	...	2	...	96		106	
...	...	...	...	...	...	5·73	
8	...	2	...	229	...	239	...
...	...	...	...	...	25	...	25
8	...	2	...	254		264	
...	...	...	...	...	...	9·46	
...	...	...	...	...	...	90·52	

TABLE

Showing the Area under different kinds of Crops,

Crops.	No.	Crops.	1918-14.							
			Chahi.		*Abi.*		*Barani.*		*Total.*	
			Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
Kharif.	1	Rice	...	...	...	...	2	...	2	...
	2	Maize	...	...	...	...	14	4	14	4
	3	*Bajra*	...	...	...	...	...	...	...	...
	4	*Til*	...	...	...	...	...	...	...	...
	5	Sugarcane	...	...	...	...	46	7	46	7
	6	Cotton	...	...	...	...	17	2	17	2
	7	Indigo	...	...	...	...	...	...	...	...
	8	Fruits	...	...	...	...	13	...	13	...
	9	Vegetables	...	...	...	...	...	...	...	...
	10	Fodder	...	...	...	...	24	...	24	...
	11	*China* and others ...	...	...	...	...	6	1	6	1
	12	*San*-hemp	...	...	...	...	25	3	25	3
	13	Pulses	...	...	...	...	2	1	2	1
	14	Total cropped	...	...	...	...	149	..	149	...
	15	Total *kharaba* ...	..	...	...	...	...	18	...	18
	16	Total sown	...	...	...	...	167		167	
	17	Percentage of *kharaba* on sown.	...	...	...	...	...	...	11·77	
Rabi.	18	Wheat	...	...	...	...	61	2	61	2
	19	Barley	...	...	...	...	4	...	4	...
	20	Wheat and gram ...	...	...	...	...	20	1	20	1
	21	Gram	...	...	...	...	...	...	...	...
	22	Tobacco	1	...	...	...	...	...	1	...
	23	Barley and *masar* ...	...	...	...	...	1	...	1	...
	24	Vegetables	...	...	...	...	3	...	3	...
	25	Fodder	11	...	...	...	...	...	11	...
	26	Wheat and barley ...	...	...	...	...	...	...	...	...
	27	*Sarshaf*	...	...	...	...	1	...	1	...
	28	Pulses	...	...	...	...	...	...	...	...
	29	Total cropped	12	...	...	...	90	...	102	.
	30	Total *kharaba*	...	...	...	...	...	3	...	3
	31	Total sown	12	...	...	...	93		105	
	32	Percentage of *kharaba* on sown.	...	...	...	...	...	...	2·85	
	33	Total cropped area ...	12	...	...	...	239	...	251	...
	34	Total *kharaba*	...	...	...	...	...	21	...	21
	35	Total sown	12	...	...	...	260		272	
	36	Percentage of *kharaba* on sown.	...	...	...	...	...	...	7·72	
	37	Percentage of cropped on cultivated area.	...	...	...	...	...	...	92·28	

No. XII – CONTINUED.

in Bairampur, from 1909-10 to 1913-14—continued.

TOTAL.							
Chahi.		*Abi.*		*Barani.*		*Total.*	
Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
...	...	...	...	10	2	10	2
...	...	...	...	64	22	64	22
...	...	...	...	...	...	...	...
...	...	...	...	...	1	...	1
...	...	...	...	270	32	270	32
...	...	...	...	44	7	44	7
...	...	...	...	...	...	...	...
...	...	...	...	35	13	35	13
...	...	...	...	...	...	...	...
...	...	...	...	161	8	161	8
...	...	...	...	11	5	11	5
	...	...	...	72	15	72	15
...	...	...	...	23	4	23	4
...	...	...	...	690	...	690	...
...	...	...	...	...	109	...	109
...	...	...	...	799		799	
...	...	...	...	...	...	13·64	
...	...	...	...	396	18	396	18
...	...	...	...	37	2	37	2
...	...	...	...	31	1	31	1
...	...	...	...	...	...	...	...
1	...	...	...	1	...	2	...
...	...	...	...	6	...	6	...
...	...	...	...	11	...	11	...
20	...	21	...	27	4	68	4
...	...	...	...	...	...	...	...
...	...	...	...	15	...	15	...
...	...	...	...	1	...	1	...
21	...	21	...	524	...	566	...
...	...	...	...	...	26	...	26
21	...	21	...	550		592	
...	...	...	...	...	...	4·39	
21	...	21	...	1,214	...	1,256	...
...	...	...	...	...	135	...	135
21	...	21	...	1,349		1,391	
...	...	...	...	10·007		9·705	
...	...	...	...	...	...	90·29	

TABLE

Showing the Area under different kinds of Crops

			Aver-	
			Chahi.	
Crops.	No.	Crops.	Matured area.	*Kharaba.*
Kharif.	1	Rice	...	...
	2	Maize	...	...
	3	*Bajra*		
	4	*Til*	...	...
	5	Sugarcane	...	...
	6	Cotton	...	...
	7	Indigo	...	...
	8	Fruits	...	...
	9	Vegetables		
	10	Fodder	...	...
	11	*China* and others		...
	12	*San*-hemp	...	...
	13	Pulses	...	...
	14	Total cropped	...	...
	15	Total *kharaba*	...	...
	16	Total sown	...	...
	17	Percentage of *kharaba* on sown	...	...
Rabi.	18	Wheat	...	...
	19	Barley	...	...
	20	Wheat and gram	...	...
	21	Gram	...	...
	22	Tobacco	·2	...
	23	Barley and *masar*	...	...
	24	Vegetables	...	...
	25	Fodder	4	...
	26	Wheat and barley	...	...
	27	*Sarshaf*	...	...
	28	Pulses	...	...
	29	Total cropped	4·2	...
	30	Total *kharaba*	...	...
	31	Total sown	4·2	...
	32	Percentage of *kharaba* on sown	...	...
	33	Total cropped area	4·2	...
	34	Total *kharaba*	...	...
	35	Total sown	4·2	...
	36	Percentage of *kharaba* on sown	...	...
	37	Percentage of cropped on cultivated area	...	...

No. XII—CONCLUDED.

in Bairampur, from 1909-10 to 1913-14—concluded.

AGE.						
Abi.		*Barani.*		*All kinds.*		Percentage on annual cropped area.
Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	
..	...	2	·4	2	·4	·79
...	...	12·8	4·4	12·8	4·4	5·09
...	...	...	...	...	...	...
...	...	...	·2	...	·2	...
...	...	54	6·4	54	6·4	21·49
...	...	8·8	1·4	8·8	1·4	3·503
...	...	...	...	...	...	...
...	...	7	2·6	7	2·6	2·77
...	...	...	...	...	...	...
...	...	32·2	1·6	32·2	1·6	12·81
...	...	2·2	1	2·2	1	·87
...	...	14·4	3	14·4	3	5·73
...	...	4·6	·8	4·6	·8	1·82
...	...	138	...	138	...	54·29
...	...	...	21·8	...	21·8	...
..	...	159·8		159·8		...
...	...	...	...	13·64		...
...	...	79·2	3·6	79·2	3·6	63·05
...	...	7·4	·4	7·4	·4	2·94
...	...	6·2	·2	6·2	·2	2·91
...	...	...	...	...	...	...
...	...	·2	...	·4	...	·16
...	...	1·2	...	1·2	...	·39
...	...	2·2	...	2·2	...	·87
4·2	...	5·4	·8	13·6	·8	5·15
...	...	...	...	...	...	...
...	...	3	...	3	...	1·19
...	...	·2	...	·2	...	·07
4·2	...	104·8	...	113·2	...	45·06
...	...	...	5·2	...	5·2	...
4·2	...	110		118·4		...
...	...	...	...	4·39		...
4·2	...	242·8	...	251·2	...	...
...	...	...	27	...	27	...
4·2	...	269·8		278·2		...
...		...	...	9·705		...
...	...	...	...	90·29		...

Showing the Area under different kinds of Crops, in

Crops.	No.	Crops.	1914-15.									
			Chahi.		*Abi.*		*Sailab.*		*Barani.*		*Total.*	
			Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
KHARIF.	1	Rice	...	...	...	...	...	...	2	...	2	..
	2	*Bajra*	...	...	...	...	...	...	...	1	...	1
	3	Maize	...	...	...	...	...	...	11	15	11	15
	4	*Til*	...	...	...	...	...	...	1	...	1	...
	5	Sugarcane	..	...	...	...	...	...	49	5	49	5
	6	Cotton	...	...	...	...	...	...	10	3	10	3
	7	Indigo	...	...	...	...	...	...	...	...	...	...
	8	Fruits	...	...	...	...	...	...	...	6	...	6
	9	Vegetables	...	...	...	...	...	...	...	...	...	
	10	Fodder	...	..	...	...	...	...	26	3	26	3
	11	*China* and others	...	...	...	...	...	...	...	...	...	...
	12	*San*-hemp	...	...	...	...	...	.	1	1	1	1
	13	Pulses	...	...	...	...	...	...	3	...	3	..
	14	Total cropped	...	...	...	...	...	...	103	...	103	..
	15	Total *kharaba*	...	...	...	...	...	...	...	34	...	34
	16	Total sown	...	...	..	...	...	...	137		137	
	17	Percentage of *kharaba* on sown.	...	...	...	...	...	.	..	...	24·81	
RABI.	18	Wheat	...	...	...	...	...	...	97	8	97	8
	19	Barley	..	...	...	...	...	...	10	3	10	3
	20	Wheat and gram	...	...	...	..	...	...	1	...	1	...
	21	Gram	...	...	...	...	...	...	...	...	...	...
	22	*Masar* and other pulses	...	...	...	...	...		...	...	...	...
	23	Tobacco	...	...	...	...	...	..	...	...	...	...
	24	Barley and *masar*	...	...	...	...	...	...	1	...	1	...
	25	Vegetables	...	...	..	...	...	...	10	...	10	...
	26	Fodder	...	...	...	...	...	...	25	5	25	5
	27	Wheat and barley	...	...	...	...	...	...	...	...	...	...
	28	*Sarshaf*	...	...	...	...	...	...	1	...	1	...
	29	Total cropped	...	...	...	...	...	...	145	...	145	...
	30	Total *kharaba*	...	...	...	...	...	...	...	16	...	16
	31	Total sown	...	...	...	...	...	...	161		161	
	32	Percentage of *kharaba* on sown.	...	...	...	...	...	...	...		9·93	
	33	Total cropped	...	...	...	...	...	...	248	...	248	...
	34	Total *kharaba*	...	...	..	...	...	...	...	50	...	50
	35	Total sown	...	...	...	..	...	...	298		298	
	36	Percentage of *kharaba* on sown.	...	...	...	...	...	...	...	..	16·77	
	37	Percentage of cropped on cultivated area.	...	...	...	...	...	...	...	..	83· 2	

No. XIII.

Bairampur, from 1914-15 to 1918-19.

1915-16.									
Chahi.		*Abi.*		*Sailab..*		*Barani.*		*Total.*	
Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
...	...	...	...	1	...	1	...	2	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	14	4	6	3	20	7
...	...	...	...	...	...	1	...	1	...
...	...	...	...	15	9	9	4	24	13
..	...	...	...	9	1	1	...	10	1
...	...	..	...	...	...	...	...	...	...
...	...	...	...	...	...	8	3	8	3
...	...	...		...	...	...	...	...	...
	...	...	...	27	1	15	2	42	3
...	...	...	...	1	...	...	...	1	...
...	...	...	...	10	2	1	1	11	3
...	...	...	...	2	...	2	1	4	1
...	...	...	...	79	...	44	...	123	...
...	...	...	...	...	17	...	14	...	31
...	...	...	...	96		58		154	
...	...	...	..	...	...	...	...	20·12	
...	...	...	...	59	13	16	6	75	19
...	...	...	...	4	4	2	1	6	5
...	...	...	...	15	1	3	...	18	1
...	...	...	...	...	...	...	...	..	...
...	...	...	...	...	...	..	...	...	...
...	...	...	..		...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	2	...	1	...	3	...
4	...	6	2	...	...	...	...	10	2
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
4	...	6	...	80	...	22	...	112	...
...	...	...	2	...	18	...	7	...	27
4	...	8		98		29		139	
...	...	...	...	18·36		...	...	19·42	
4	...	6	...	159	...	66	...	235	...
...	...	...	2	...	35	...	21	...	58
4	...	8		194		87		293	
...	...	...	...	...	...	...	...	19·71	
...	...	...	...	...	...	...	...	80·204	

TABLE

Showing the Area under different kinds of Crops,

Crops.	No.	Crops.	1916-17.									
			Chahi.		*Abi.*		*Sailab.*		*Barani.*		*Total.*	
			Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
KHARIF.	1	Rice	.	...	1	...	1	...	1	...	3	...
	2	*Bajra*	...	...	...	...	...	...	1	1	1	1
	3	Maize	...	...	...	...	15	2	5	...	20	2
	4	*Til*	...	...		..	1	...	1	...	2	...
	5	Sugarcane	14	...	...	...	20	5	3	1	37	6
	6	Cotton	...	...	...	...	...	...	4	1	4	1
	7	Indigo	..	...	...		...	...	...	...	...	...
	8	Fruits	...	.	..	..	9	3	...	...	9	2
	9	Vegetables	...	...	...	...	...	.	...	...	...	...
	10	Fodder ...	..	...		...	21	3	20	5	41	8
	11	*China* and others ...	...	...	...	...	...	...	...	...	...	...
	12	*San*-hemp	...	...	...	..	6	6	5	...	11	6
	13	Pulses	...	...		..	2	...	3	1	5	1
	14	Total cropped ...	14	..	1	...	75		43	...	133	...
	15	Total *kharaba* ...	...	...	...	...	...	19	...	9	...	28
	16	Total sown	14	...	1	...	94		52		161	
	17	Percentage of *kharaba* on sown.	...	...	...	...	...	...	...	...	17·39	
RABI.	18	Wheat	...	...	...	...	32	11	9	3	41	14
	19	Barley	...	...	...	...	2	1	1	...	3	1
	20	Wheat and gram ...	...	...		..	27	9	2	...	29	9
	21	Gram	...	...	...	.	1	...	...	...	1	...
	22	*Masar* and other pulses ...		...	...	...	...	...	...	...	...	...
	23	Tobacco	1	...	...	...	..	...	...	...	1	...
	24	Barley and *masar* ...		...	...	...	...	...	...	...	...	...
	25	Vegetables	...	...	...		10	...	6	..	16	...
	26	Fodder	7	...	...	...	15	...	2	..	24	..
	27	Wheat and barley ...	...	..	...	...	..	...	...	...	...	...
	28	*Sarshaf*	..	...	...	...	...	...	...	...	...	...
	29	Total cropped ...	8	...	..	...	87	...	20	...	115	...
	30	Total *kharaba* ...	..	...	...	...	...	21	...	3	...	24
	31	Total sown	8	...	...	...	108		23		189	
	32	Percentage of *kharaba* on sown.		...	..	...	..	...	...	..	17·26	
	33	Total cropped area ...	22	..	1	...	162	...	63	...	248	...
	34	Total *kharaba* ...	...	...	...	...	...	40	...	12	...	52
	35	Total sown	22		1		202		75		300	
	36	Percentage of *kharaba* on sown.	...	...	...	...	.	...	...		17·33	
	37	Percentage of cropped on cultivated area.	...	...	...		...	...	...	..	82·66	

No. XIII—CONTINUED.

in Bairampur, from 1914-15 to 1918-19—continued.

1917-18.									
Chahi.		*Abi.*		*Sailab.*		*Barani.*		*Total.*	
Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
...	...	...	...	2	...	1	...	3	...
...	...	...	...	...	...	...	...	..	...
...	...	...	...	9	7	2	2	11	9
...	...	...	...	..	...	...	...	...	...
...	...	...	..	20	3	17	1	37	4
...	...	...	...	10	3	4	2	14	5
...	...	..	...	...	...	...	...	...	...
...	...	...	...	...	...	...	11	...	11
...	...	...	...	..	..	...	...	...	...
...	...	...	...	23	2	17	6	40	8
...	...	...	...	2	...	...	...	2	...
...	...	...	..	13	2	2	...	15	2
...	...	..	...	4	...	1	...	5	...
...	...	...	...	83	..	44	...	127	...
...	...	...	...	...	17	...	22	...	39
...	...	...	...	100		66		166	
...	...	...	...	...	...	...	...	23·49	
...	...	...	...	59	5	13	2	72	7
...	...	...	...	5	1	3	...	8	1
...	...	...	...	13	...	...		13	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	..	...	...
...	...		...	...	...	...	...	...	...
...	...	...	...	1	..	2	...	3	...
...	...	...	...	22	3	5	1	27	4
		...	...	1	..	...	...	1	...
...	...	...	...	2	...	...	...	2	...
...	..	...	...	103	...	23	...	126	...
...	...	...	...	...	9	...	3	...	12
...	...	...	...	112		26		138	
...	...	...	...	...	...	...	...	8 69	
...	...	...	...	186	...	67	...	253	...
...	...	...	...	...	26	...	25	...	51
...	...	...	...	212		92		304	
...	...	...	...	...	...	..	...	16·77	
...	...	...	...	...	...	...	...	83·22	

TABLE

Showing the Area under different kinds of Crops,

Crops.	No.	Crops.	1918-19.									
			Chahi.		*Ali.*		*Sailab.*		*Barani.*		*Total.*	
			Matured area.	*Kharaba*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
Kharif.	1	Rice	...	.	...	...	...	1	...	1	...	2
	2	*Bajra*	...	...	..		...	...	...	1	...	1
	3	Maize	...	...	...	..	5	9	4	4	9	13
	4	*Til*	..	...	...	...	...	...	...	...	...	...
	5	Sugarcane	...	...	...	...	13	31	6	7	19	38
	6	Cotton	...	...	...	...	4	4	4	..	8	4
	7	Indigo	...	...	...	...	...		12	...	12	...
	8	Fruits	...	...	..		...	...	...	...	...	...
	9	Vegetables	...	...	...	...	...	...	...	...	...	...
	10	Fodder	...	...	...	.	10	22	6	9	16	31
	11	*China* and others	..	...	...	...	..	...	...	1	...	1
	12	*San*-hemp	...		...	...	6	3	1	2	7	5
	13	Pulses	...	...	...	...	4	2		...	4	2
	14	Total cropped	...	...	...	...	42	...	33		75	
	15	Total *kharaba*	..	...	...	...	...	72	...	25		97
	16	Total sown	...	...	...	...	114		58		172	
	17	Percentage of *kharaba* on sown.	...	...	...	...	..	...	...	..	56·39	
Rabi.	18	Wheat	...	...	...	...	77	4	21	2	98	6
	19	Barley	...	-		...	7	2	5	1	12	3
	20	Wheat and gram	...	...	...	...	9	..	1	..	10	..
	21	Gram	...	...	...	.	1	1	..	...	1	1
	22	*Masar* and other pulses	...	...	..	...	1	...	...	...	1	...
	23	Tobacco	...	...	...	...		...	...	...	...	...
	4	Barley and *masar*	...	...	...	...	2	1	...	...	2	1
	25	Vegetables	...	...	...	...	5	...	..		5	...
	26	Fodder	...	...	...		2	2	3	1	5	3
	27	Wheat and barley	...	...	...	...		...	...	...	...	...
	28	*Sarshaf*	...	...	...	...	1	...	...	...	1	...
	29	Total cropped	...	...	...	...	105	...	30	...	135	...
	30	Total *kharaba*	...	..	...	...	...	10	..	4	...	14
	31	Total sown	...	...	...	...	115		34		149	
	32	Percentage of *kharaba* on sown.	...	...	...	...	...	...	...	...	9·39	
	33	Total cropped	...	...	..		229	...	92	...	321	...
	34	Total *kharaba*	...	...	...	...	...	82		29	...	111
	35	Total sown	...	...	...	...	311		121		432	
	36	Percentage of *kharaba* on sown.	...		...	...	...	...	...	...	25·69	
	37	Percentage of cropped on cultivated area.	...	...	...	...	...	...	..	...	74·43	

No. XIII—CONTINUED.

in Bairampur, from 1914-15 to 1918-19—continued.

TOTAL.									
Chahi.		*Abi.*		*Sailab.*		*Barani.*		*Total.*	
Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
...	...	1	...	4	1	5	1	10	2
...	...	...	..	...	...	1	3	1	3
...	...	...	...	43	22	28	24	71	46
	...	...	...	1	...	3	...	4	...
14	...	...	...	68	48	84	18	166	66
...	...	...	...	23	8	23	6	46	14
...		...	...	...	...	12	...	12	...
...	...	...	...	9	3	8	20	17	28
...	...	...		...	...	...	...	...	...
...	...	...	...	81	28	84	25	165	53
...	...	...	...	3	...	...	1	3	1
..	...	...	...	35	13	10	4	45	17
...	...	...	...	12	2	9	2	21	4
14	..	1	...	279	...	267	...	561	...
...	...	...	...	..	125	...	104	229	...
14	...	1	...	404		371		790	
...	...	...	...	...	...	...	...	28·98	
...	...	...	...	227	33	156	21	383	54
...	...	...	...	18	8	21	5	39	13
...	...	...	...	64	10	7	...	71	10
...	...	...	...	2	1	...	...	2	1
...	...	...	...	1	...	...	...	1	...
1	...	..	...	...	...	...	...	1	...
...	...	...	...	2	1	1	...	3	1
...	...	...	...	18	...	19	...	37	...
11	...	6	2	39	5	35	7	91	14
...	...	...	...	1	...	...	...	1	...
...	...	...	...	3	...	...	...	3	...
12	..	6	...	375	...	240	...	633	...
...	...	..	2	...	58	...	33	...	93
12	...	8		433		273		726	
...	...	...	...	...	...	...	...	13 809	
26	...	7	...	736	...	536	...	1,305	...
...	...	...	2	...	183	...	137	...	322
26	...	9		919		673		1·627	
...	...	...	...	...	...	...	..	19·79	
...	...	...	...	...	...	...	...	80·209	

TABLE

Showing the Area under different kinds of Crops,

Crops.	No.	Crops.	AVE			
			Chahi.		*Abi.*	
			Matured area.	*Kharaba.*	Matured area.	*Kharaba.*
KHARIF.	1	Rice	...	...	·2	...
	2	*Bajra*	...	...	...	...
	3	Maize	...	...	...	...
	4	*Til*	...	...	...	...
	5	Sugarcane	2·8	...	...	...
	6	Cotton	...	...	...	...
	7	Indigo	...	...	...	...
	8	Fruits	...	...	...	...
	9	Vegetables	...	...	...	...
	10	Fodder	...	...	...	...
	11	*China* and others ...	...	...	...	...
	12	*San*-hemp	...	...	...	...
	13	Pulses ...	...	...	...	...
	14	Total cropped	2·8	...	·2	...
	15	Total *kharaba*	...	...	...	...
	16	Total sown	2·8	...	·2	...
	17	Percentage of *kharaba* on sown.	...	...	...	...
RABI.	18	Wheat	...	...	...	...
	19	Barley	..	...	...	...
	20	Wheat and gram ...	...	...	...	...
	21	Gram	...	...	...	...
	22	*Masar* and other pulses ...	...	...	...	...
	23	Tobacco	·2	...	...	...
	24	Barley and *masar* ...	...	...	...	...
	25	Vegetables	...	...	...	...
	26	Fodder	2·2	...	1·2	·4
	27	Wheat and barley ...	...	...	...	...
	28	*Sarshaf*	...	...	...	...
	29	Total cropped	2·4	...	1·2	...
	30	Total *kharaba*... ...	...	...	...	·4
	31	Total sown	2·4	...	1·6	
	32	Percentage of *kharaba* on sown.	...	...	...	...
	33	Total cropped	5·2	...	1·4	...
	34	Total *kharaba*	...	...	...	·4
	35	Total sown	5·2	...	1·8	
	36	Percentage of *kharaba* on sown.	...	...	...	...
	37	Percentage of cropped on cultivated area.	...	...	...	...

No. XIII—CONCLUDED.

in Bairampur, from 1914-15 to 1918-19—concluded.

RAGE.						
Sailab.		*Barani.*		*Total.*		Percentage on annual cropped area.
Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	Matured area.	*Kharaba.*	
·8	·2	1	·2	2	·4	·76
...	...	·2	·6	·2	·6	·07
8·6	4·4	5·6	4·8	14·2	9·2	5·44
·2	...	·6	...	·8	...	·306
13·6	9·6	16·8	3·6	33·2	13 2	19·72
4·6	1·6	4·6	1·2	9·2	2·8	11·18
...	...	2·4	...	2·4	...	·91
1·8	6	1·6	4	3·4	4·6	1·302
...	...	...	...	...	...	...
16·2	5·6	16·8	5	33	10·6	12·64
·6	...		·2	·6	·2	·200
7	2·6	2	·8	9	3·4	·34
2·4	·4	1·8	·4	4·2	·8	1·609
55 8	...	53·4	...	112·2	...	42·605
25	...	20·8	...	45·8	...	...
80·8		74·2		158		
...	...	...	...	28 98		...
45·4	6·6	31·2	4·2	76·6	10·8	29·34
3·6	1·6	4·2	1	7·8	2·6	2·98
12·8	2	1·4	...	14·2	2	5·44
·4	·2	...	...	·4	·2	·15
·2	...	...	...	·2	...	·07
...	...	...	...	·2	...	·07
·4	·2	·2	...	·6	·2	·22
3·6	...	3·8	...	7·4	...	2·82
7·8	1	7	1·4	18·2	2·8	6·97
·2	...	...	...	·2	...	0·7
·6	...	...	...	·6	...	·22
75	...	48	...	126 6	...	48·505
...	11·6	...	6·6	...	18·6	...
86·6		54·6		145·2		
...	...	...	...	12·809		...
147·2	...	107·2	...	261	...	...
...	36·6	...	27·4	...	64·4	...
183·8		134·6		325·4		
...	...	...	...	19·79		...
...	...	...	...	80·209		..

If sown in *do-fasli* land, it often follows maize and sugarcane and no manure is used. Manure is, however, used to a smaller or greater extent on *ek-fasli* lands*, and the amount differs from ½ to 1½ *gadda*† per *kanal* or about 5 to 15 *gaddas* per acre. The best time for sowing is from the middle to the end of October, but it is sown even later too. The quantity of seed used depends on the quality of the soil and differs from 10 seers to 40 seers an acre. The field is weeded once or twice, according to the quantity of *piazi* and *bathu* weeds in the field. One man can weed about 10 to 15 *marlas* a *kanal* and a *kanal* and a quarter in a day. The weeding is done by the *zamindar* with the help of Chamars or other labourers who are paid at the rate of 6 to 7 annas a day and are also sometimes entertained at the *Chhawela*. If the *zamindar* does not desire them to enjoy the usual respite, he has to entertain them at noon too. The number of labourers employed depends on the amount of work, the season, the state of crops, and the number of working hands in the family. The average number of working members in an average family in Bairampur is small and labourers have to be employed. The Rajputs of Kutabpur and Daulowal employed outside labour abundantly. The Jats of Mukimpur, have few permanent *separs* or family *kamins*, and they employ labourers only occasionally.

About the middle of April begins reaping.

When cut it is tied into sheaves and after a day or two sometimes the same *evening*) brought to the threshing floor. The amount of work done depends on the crop. On an average 5 men can cut and tie into sheaves 8 *kanals* (·7 acre) in one day on *niain* land. After a few days, threshing begins and is done by bullocks treading it out and dragging after them a frame work of wood (called *phala*). A strong sun is considered necessary for treading out the corn successfully.

Rah rahn
Te gah gahn

When it is too hot for travelling on a road.
That is the time for treading out corn.

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* *Ek-fasli*—Land on which only one crop is raised.

† A *gadda* is said to contain about 16 maunds of manure.

The winnowing is done by the Chamars by lifting the wheat and chaff over the head in baskets and letting them fall gradually to the ground, so that the wind separates the chaff from the grain. The time taken for the operation depends on the harvest and the wind; if it does not blow well and continuously, several days more may be spent than necessary.

Gram is seldom sown alone. Like wheat it is sown in the end of September or the beginning of October. The crop requires little moisture and rain is especially destructive when the plant is in flower, when *sundi* (an insect) attacks the pods and prevents the gram from forming. Ploughing, sowing, reaping and treading is done just like wheat.

Wheat and Gram.—The sowing of *berra* or wheat and gram mixed is quite popular, and is done under the belief that whatever the year, one of the two crops is sure to give a good yield.

Barley.—Barley is cultivated mostly in irrigated or moist lands. It is often grown alone and sometimes mixed with wheat or *masar*. No manure is used and the quantity of seed is about a maund for an acre. The method of cultivation is the same as for wheat, though barley can be sown till the end of December. Patches of barley are sometimes cut as it is ripening, grain is extracted and ground and a kind of porridge, known as *sattu*, is prepared out of it. The *sattu* mixed with sugar and water is a very popular drink during the summer, because it is considered to possess cooling effects.

Sarson or sarshaf.—*Sarson*, a kind of mustard, is sometimes cultivated in patches and sometimes mixed with *senji*. It is a popular crop on a small scale, for its leaves supply vegetables from October to January. It also serves as a green fodder, *Sarson* oil is much used, though the crop, in these villages, is raised primarily for (serving as a) fodder.

The other *rabi* crops are tobacco, which is cultivated but seldom, *masar* which is often cultivated with barley and *senji* in manured and moist, *sailab*, *abi* or *chahi* lands. Melons are also raised, but they are considered as vegetables.

B.—Kharif Crops.

Maize (*makki* or *chhali*) is always raised in good manured land and the amount of manure used varies from 12 to 20 *gaddas* for an acre. It is generally grown on *do-fasli* land. The number of ploughings given varies from 3 to 5 in *niain* and *sailab* lands and from 2 to 4 times in *maira* lands. It is never sown close.

Lef di bukkal mar ke,

Chhalian wichon ja.

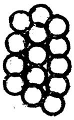
Let a man wrap himself in his *quilt*.

And walk through a field of maize.

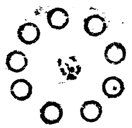
The seed is sown after the first fall of rain, and the quantity used is about 20 seers for an acre. It is sometimes sown mixed with *mash*. Weeding depends on the rains and the quantity of weeds. Ten or twelve days after sowing the first round of weeding takes place, and a fortnight afterwards the second one. If there are a lot of weeds still, the fields may be weeded again, but generally they are not. A man can weed between 8 and 10 *marlas* in a day. Owing to the frequency of rains, the work has to be finished as soon as possible and the number of labourers employed is large.

When the plant is a couple of feet high it is *halud* ploughed up. A hairy red caterpillar called *kutra* is very destructive to the young shoots, but it appears for a short time only in the beginning of rains and then disappears. Moderate and constant rain, with alternating sunshine, is best for maize ; both drought and much rain do harm. Depredations by man and animals are frequent and the crops when ripening require constant guarding, though on account of the mercellement of holdings, it is impossible for the husbandman to keep a proper watch. The crop ripens in September and October when it is cut. One man can cut about 4 *kanals* a day. The usual practice with regard to cutting is that it is carried on for half the day, and the rest of the day is devoted to other things. After cutting the plants are left on the ground for a day or two and then tied into sheaves and carried to the *pir*, the threshing floor.

The sheaves are placed together against one another in an erect position thus*—



They are kept standing in this way for 10 to 12 days in order to allow time for the unripened cobs to get ripened and to allow moisture to operate on the stalks and soften them. The sheaves are then untied one at a time, and with the help of a peg the cobs are taken off from each one of the plants, so as to leave the leafy cover of the cob attached to the *tanda* or the plant. It is estimated that one man can separate the cobs in this way from off 13 to 15 *bharis* or sheaves in 8 hours. The *sepidar*—permanent family *kamin*—is often employed to help, but no other outside help is taken. Women, too, sometimes help in the operation. The cobs are then placed under the sun for a week or two and dried. The plants are retied into sheaves and placed in a circle round the threshing floor, the inner part of the



circle being reserved for the drying cobs. Some space is left between each one of the sheaves, so that by the combined action of the sun and air they get dried in a short time. If the quantity of cobs is large, some clothes are hung round, between each pair of the sheaves, to serve as curtains to keep the grains at the time of beating the cobs from flying off the *pir*. The cobs are then beaten with *munglis* (clubs) and *dandas* (sticks). When the grain is separated, *udai* (winnowing) is done by the *zamindar* or the Chamar, who is not paid anything for this particular service. The dried sheaves are then removed and preserved as fodder by placing one sheaf over the other in a horizontal position.

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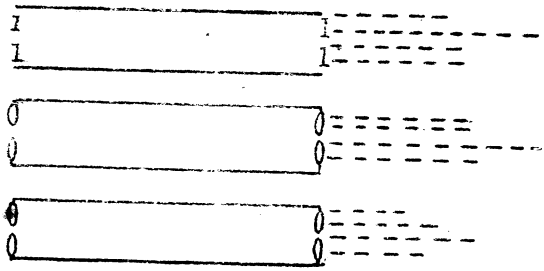
* The process is known as *lavi*.



Sugarcane— The number of ploughing given depends on the quality of the soil thus—

Sailab and *Abi* ...	12 to 15 times.	*Maira* ...	7 to 8 times.
Niain ...	8 to 10 „	*Retar* ...	4 to 5 „

The land is always manured and as much of manure as is available is used. About 20 to 30 *gaddas* are put in an acre. *Chan*, a thin redish juicy cane with a thin peel, is the variety mostly sown and the soils in which it is usually grown are the *abi*, *sailab* and *maira*.

The seeds are preserved in two ways:—

(1) When the pressing begins the top joints of the canes are cut off, to the length of four or five knots and tied up into small (*púlas*) bundles, which are buried upright in the ground.

(2) The number of canes required for seed are left standing in the field till wanted, when the whole cane is cut up and sown.

When the sugarcane is liable to injury from frost, the latter plan cannot be followed and this appears to be the reason as to why seed is preserved, generally speaking in the first method in Bairampur In Mukimpur they leave the canes reserved for seed, standing. Both the methods are followed indifferently in Daulowal. The Jats at Mukimpur estimated that they required 200 canes as seed, for a *kanal.* The seed is sown in March thus: A furrow is made with a plough, and a man walking behind drops the *balota* —piece of cane-seed—in and presses it down at interval of a foot between each seed. The furrows are made as close as possible to one another.

Kanak kamadi sangni.

Sow wheat and sugarcane close.

Afterwards *sohaga* is pressed over the field to cover the seed. The soil is then loosened and weeded from 3 to 4 times. Twice or thrice the *godi*, hoeing and weeding, is carried on with *baguri*, once in *Chet* and twice in *Bisakh*. In *Har* (June) the last *godi* is done with *kahis* (spades). On an average one man can hoe and weed about ·05 acres in a day.

The cane is liable to an attack by white ants, especially if the land is not weeded well for the first time. *Tela*, a small insect, attacks it in dry years. Rats too do much damage. For a remedy the tops of the full grown canes are tied together in lots of 15 or so. This gives light below and checks the wandering instincts of the rats. The tying together of the canes is also a preventive against frost bite.

From *Maghar* to *Phagan*, the end of October to the end of January, lasts the cutting and pressing. The presses used are the two or three roller iron-mills, and they are often worked by a number of partners, in Bairampur, on co operative lines. Early in the morning a few of the *zamindars* go to the fields, begin to cut the canes, which are afterwards peeled and tied into bundles. A Chamar carries the bundles to the pressing-mill. At the same time, when some of the *zamindars* go to the fields, others run the press and begin the crushing of the canes, stored for the purpose at night. The juice, as it exudes, flows into an earthen vessel from which it is carried to the *karaha* (boiling pan).

The boiling of the juice differs according to the article required. In all the four villages all but one make either *gur*, coarse undrained sugar, or *shakkar*, coarse undrained sugar dried. The *sahukar* in Kutabpur prepares *mal rab*, the material from which drained sugar is made. The fire is kept burning by a Chamar and the fuel used is *khori*—dry leaves and peels of the sugarcane plants—and *gulran*—dried pieces of cane from which juice has been extracted. The *jhoka* or *jhokidar*—the man who keeps the fire burning—and the Chamar—who carries cane from the field to the press—are paid one *pao** (*kham*) of *gur* for every *ghara*.† Four *gharas* yield about a maund of *gur*, so that on an average the two labourers are paid one seer *kham* for every maund (*kham*) of *gur* prepared.

**Pao* is equal to ¼th seer.

†*Ghara* an earthen vessel.

In making *gur* the boiled juice is emptied into a flat dish called *gand* and allowed to cool, when it is worked up into round or flat balls. For *shakkar*, the cooled substance is well worked with the hands into a powder. The boiling is superintended by the *zamindar* or his partner and sometimes by a specialist known as the *rabia*.

Cotton.—The land is manured by putting in about 10 *gaddas* an acre and ploughed 4 to 7 times. If sown in *Chet* (March) it is known as *chetri*, if in June or July, it is known as *watri*. The seeds are generally steeped in water and then rubbed with dung to prevent their adhering together. Ten or twelve days after sowing, the field is weeded for the first time and one can weed about one-tenth of an acre in a day. The usual practice is to weed by fits and starts : the *zamindar* is busy with other things and whenever he finds an opportunity he weeds a bit. In June the weeding is conducted more carefully, and outside help is also taken. The last hoeing is done with *kahis* (spades). In October begins the picking. Small children and women do the picking and get one-tenth of the quantity picked as their share. If the quantity sown or raised is small, picking is done by the women of the family themselves.

Munji or rice.—*Munji* is sown in March or April, after three or four ploughings in *abi* and *sailab* lands. Seedlings are raised in small beds and then sown in the fields. The harvest is ready in October and November. The rice crop is not weeded in the proper sense of the word. Slight weeding is done and is known as *tal dena*. The crop is cut when green, otherwise much of the grain drops into the field and is lost to the *zamindar*. Threshing is done by the treading of cattle. The straw is of little use and the grains are husked by pounding them in an *ukhali*—large wooden mortar—with a *mohla* (pestle.)

San—hemp.—No manures are used and the seed is sown after three or four ploughings. It is sown in light soils and is often used as a green manure. There is no proper weeding, but the fields are often cleared of *makrus*—thorny weeds—by small children of Chamars who are given some *rotis* (loaves) as wages. In Daulowal the practice is to sell the crop while standing, at about Rs. 4 to Rs. 5 per *kanal*.

The green-leaves, if the *zamindar* does not desire to manure his land with the hemp-plant leaves, are used as a green fodder.

When the quantity sown is not large, the crop is cut in *Katak* (September) and the plants are tied into small bundles (*ganas*). They are left to dry in a place up to *Maghar* (October and November). Then the bundles are placed under water in a tank or pond. After about 20 days they are taken out and the fibres are separated from the stalks by women, children and the *zamindars* in leisure hours. The fibres are used or stored for making ropes and the dry plants (*senganian* used as fuel.

Mash, *mung* and *moth* are sown for the purpose of raising pulses. When green they serve as excellent fodder too.

Chari.—After four or five ploughings, the seed is sown close. Manuring depends on the quantity of manure available. Drought affects *charí* badly and in the absence of rains it is said to turn poisonous, sometimes. *Charí* is used as fodder alone.

The other *kharif* crops are *swánk*, *chiṅa* and *til*. So far as these villages are concerned, they are unimportant.

The Rotation of Crops.—The most important crops of the village are : the Sugarcane, Wheat, Maize, Cotton, Barley, San and fodder of all kinds. *San*-hemp is often sown on account of its manuring the fields automatically as if it were ; when the crop is ready and mature, the leaves of the plant drop into the field and serve as manure. The *zamindar* is always on the look out not to exhaust the soil completely, and so far as his knowledge goes, he tries to follow the best rotation of crops. Tables XIII to XVIII (on pages 72 to 78) represent the rotation of crops, in Bairampur. The crops raised in a number of fields of each kind of soil were noted for the last four years thus :—

Kharif.	*Rabi.*
1915	1916
1916	1917
1917	1918
1918	1919

and the results were classified and tabulated in the abovementioned tables. The value of the leguminous crops as fertilisers does not seem to be realised much. Rather than raising such crops they leave the ground fallow.

TABLE No. XIII.

Showing the Rotation of Crops on Retar *Lands.*

Number of fields examined—4

Total area—11 *kanals* 15 *marlas.*

Areas of the fields.	
Kanals.	*Marlas.*
1	10
4	5
4	15
1	5
11	15

	Crop.	Matured area.		*Kharaba.*		Total area.		Percentage of *kharaba* on total area.	Percentage of matured area on total area.	Number of times sown	Followed by—
		*K.	M.	K.	M.	K.	M.				
Kharif.	Fodder	14	15	0	15	15	10	4·8	95·2	4	Fallow 3 times and wheat once.
	Sugarcane	2	0	5	5	7	5	72·4	27·6	3	Fallow 3 times in *rabi*.
	San	2	15	5	15	8	10	67·6	32·4	4	Wheat once and fallow 3 times.
	Maize	4	5	...		4	5	...	100	1	Fallow once.
	Cotton	4	5	...		4	5	...	100	1	Fallow once.
	Fallow	...		...		7	5	.	...	3	Barley twice and wheat once.
Rabi.	Barley	3	15	2	15	6	0	45·8	54·2	2	Fodder twice.
	Wheat ...	2	10	4	15	7	5	65·5	34·5	3	Fallow once and fodder once(†—1).
	Zaid rabi	1	5	...		..		...	..	1	(†—1).
	Fallow	...		...		33	15	...	...	11	*San* 3, Sugarcane 1, maize 1, cotton 1, fodder 2 (†—3).

* K. = Kanals.
M. = Marlas.

†—Information with regard to the crop that followed *Rabi* 1919, not noted and hence not available for this table.

TABLE No. XIV.

Showing the Rotation of Crops on Barani Lands.

Number of fields examined—8.

Total area—16 *kanals.*

AREAS OF THE FIELDS.

Kanals.	*Marlas.*
3	10
2	0
1	15
1	15
1	0
1	0
3	5
1	15
16	0

Crop.		Matured area.		*Kharaba.*		Total area.		Percentage of *kharaba* on total.	Percentage of matured area on total.	Number of times.	Followed by—
		*K.	M.	K.	M.	K.	M.				
Kharif.	Sugarcane ...	27	0	2	0	29	0	6·8	93·2	16	Fallow 14, wheat 1, fodder 2 (partly).
	Cotton ...	1	15	3	0	4	15	63·1	36·9	2	Fodder 1, wheat 1.
	Fodder ...	3	0	2	0	5	0	40	60	3	Fodder 1, wheat 2.
	Maize ...	8	0	0	15	8	15	8·5	91·5	5	Fallow 4, fodder 1.
	Munji ...	0	15	...		0	15	...	100	1	Fodder 1.
	Fallow ...	...		...		15	15	...	...	5	Fallow 3, wheat 2.
Rabi.	Wheat ...	10	0	4	0	14	0	28·5	71·5	6	Maize 3, fallow 1, sugarcane 1, († —1.)
	Fodder ...	7	5	2	15	10	0	27·5	72·5	5	Sugarcane 2, fallow 2 (†—1).
	Fallow ...	...		...		40	0	...	..	31	Sugarcane 10, maize 3, fodder 13 (†—5.)
	Zaid Rabi ...	5	10	..		5	10	...	...	2	Cotton 1 († —1).

* { K = Kanals.
  M = Marlas.

†—— Information not available.

TABLE No. XV.

Showing the Rotation of Crops on Maira *Lands.*

Number of fields examined—4.

Total area of the fields examined—4 *kanals* and 5 *marlas.*

AREAS OF THE FIELDS.

Kanals.	*Marlas.*
1	10
0	15
0	15
1	5
4	5

	Crop.		Matured area.		*Kharaba.*		Total area.		Percentage of the *kharaba* on the total.	Percentage of matured area on the total.	Number of times sown.	Followed by—
			*K.	M.	K.	M.	K.	M.				
Kharif.	Fodder	...	13	10	...		13	10	...	100	13	Wheat 5, barley 3, fallow 4, barley and *masar* 1.
	Fallow	...	...		...		3	10	...	...	3	Wheat 3.
Rabi.	Wheat	...	5	15	2	0	7	15	25·8	74·2	7	Fodder 4, fallow 2 (†——1).
	Barley	...	1	10	0	15	2	5	33·3	66·7	3	Fodder 2 (†——1).
	Barley and *Masar*	...	1	0	0	10	1	10	33·3	66·7	1	(†——1).
	Fallow	..	..		..		5	10	...	...	5	Fodder 5.

* K = Kanals.
M = Marlas.

†—— Information not available.

TABLE No. XVI

Showing the Rotation of Crops on Niain *land.*

Number of fields examined —5.

Total area of the fields examined—3 *kanals* & 15 *marlas*.

AREAS OF THE FIELDS.

Kanals.	*Marlas.*
1	0
1	0
0	10
0	10
0	15
3	15

	Crop.	Matured area.		*Kharaba.*		Total area.		Percentage of *kharaba* on the total area.	Percentage of matured area on the total area.	Number of times sown.	Followed by—
		*K.	M.	K.	M.	K.	M.				
Kharif.	Fodder	4	10	1	10	5	10	18·1	81·9	6	Fodder 3, wheat 2, fallow 1.
	Sugarcane	3	15	...		3	15	...	100	4	Fodder 1, fallow 3.
	Fallow	...		...		2	5	...	...	4	Wheat 1, fallow 3.
	Munji	2	10	1	0	3	10	28·5	71·5	6	Fodder 2, wheat 1, fallow 3.
Rabi.	Wheat	4	5	...		4	5	...	100	5	Fodder 2 (†——3).
	Fodder	5	5	...		5	5	...	100	5	Fodder 1, sugarcane 1, munji 1 (†——1).
	Fallow	...		...		5	10	...	...	10	Sugarcane 4, *munji* 3, fallow 2 (†——1).

* K. = Kanals.
M. = Marlas.

†——Information not available.

TABLE No. XVII

Showing the Rotation of Crops on Sailab *land.*

Number of fields examined—23.

Total area of the fields—47 *kanals* & 10 *marlas.*

	Crop.	Matured area.		*Kharaba.*		Total sown.		Percentage of *kharaba* on sown.	Percentage of matured area on sown.	Number of times sown.	Followed by—
		*K.	M.	K.	M.	K.	M.				
Kharif.	Maize ...	1	5	0	10	1	15	28·5	71·5	1	Fodder 1.
	Cotton ...	3	5	...		3	5	...	100	2	Fallow 2.
	San ...	8	0	7	10	15	10	48·3	51·7	5	Fodder 1, fallow 4.
	Maize and *Mash*	14	15	1	0	15	15	63·4	36·6	3	Wheat 2, fallow 1.

AREAS OF THE FIELDS.	
Kanals.	*Marlas.*
0	15
3	10
2	0
3	15
1	10
1	0
1	0
1	0
0	15
0	15
1	15
1	15
0	10
0	15
0	10
0	10
10	0
4	15
3	10
2	5
3	0
1	10
0	15
47	10

Kharif.	Fodder ...	26	5	3	0	29	5	10·2	89·8	29	Wheat 19, fodder 6, barley 1, wheat and gram 1, fallow 2.
	Sugarcane ...	49	5	18	10	67	15	27·3	72·7	24	Wheat 6, fallow 17, fodder 1.
	Munji ...	14	15	...		14	15	...	100	13	Fallow 11, wheat 1, fodder 1.
	Fallow ...	...		...		42	15	...	...	15	Wheat 9, barley 1, fodder 1, wheat and gram 1, fallow 3.
Rabi.	Barley ...	2	5	...		2	5	...	100	3	Fodder 1, maize (†——1).
	Wheat and Gram	4	0	5	10	9	10	57·8	42·2	1	Fallow 1.
	Fodder ...	7	0	...		7	0	...	100	10	Fodder 3, sugarcane 3, *san* 1 (†——3).
	Wheat ...	71	0	12	10	83	10	14·9	85·1	37	Fodder 19, *munji* and *mash* 1, sugarcane 2, fallow 5 (†——9).
	Fallow ...	...		...		87	10	...	...	41	*Munji* 2, sugarcane 11, fallow 3, *san* 2, maize 1, cotton 1, wheat 2 (†——10).
	Zaid Rabi ...	1	10	...		1	10	...	...	1	*San* 1.

* K. = Kanals.
M. = Marlas.
†——Information not available.

TABLE No. XVIII.

Showing the Rotation of Crops on Abi *land.*

Number of fields examined—6.

Total area of the fields examined—14 *kanals* & 10 *marlas.*

AREAS OF THE FIELDS.	
Kanals.	***Marlas.***
3	5
1	5
1	0
2	5
1	0
5	15
14	10

	Crop.	Matured area.		*Kharaba.*		Total area.		Percentage of *kharaba* on total.	Percentage of matured area on total.	Number of times sown	Followed by—
		*K.	M.	K.	M.	K.	M.				
Kharif.	Sugarcane	28	10	4	5	32	15	12·9	87·1	10	Wheat 1, barley 1, fallow 8.
	Fodder	6	0	1	0	7	10	20	80	9	Fodder 7, fallow 2.
	San	3	5	...		3	5	...	100	1	Fallow 1.
	Maize & *Mash*	1	0	1	5	2	5	55·5	44·5	1	Fodder 1.
	Maize	...		5	15	5	15	100	...	1	Fodder 1.
	Fallow	...		...		6	10	...	...	2	Wheat 2.
Rabi.	Fodder	12	15	0	10	13	5	3·8	96·2	7	Fodder 4, sugarcane 2 (†——1).
	Wheat	9	15	...		9	15	...	100	3	Fallow 2 (†——1).
	Barley	2	5	...		2	5	...	100	1	Maize.
	Fallow	...		...		32	5	...	...	18	Sugarcane 8, fodder 1, maize and *mash* 1 (†——3).
	Zaid Rabi	3	5	...		3	5	...	100	2	Fodder 1 (†——1).

* { K.—Kanals.
  { M.—Marlas.

†——Information not available.

The crop-yielding capacity of the various kinds of soils, from the cultivator's point of view under the existing circumstances, may perhaps be measured by the ratio of the number of times that the fields could have been sown to the number of times that they were actually sown or left fallow. The results have been tabulated in Table No. XIX below. How urgent and crying is the need for manures, need hardly be pointed out the figures speak for themselves.

TABLE No. XIX

Showing the Crop-yielding capacity of the various kinds of soils in Bairampur

Kind of soil.	Total number of times that the fields could have been sown.	Number of times that the fields were left fallow.	Percentage of fallow on total sowing capacity.	Total area (including the fallow) that could have been sown, in *marlas*.	Total area left fallow, in *marlas*.	Percentage of the area left fallow on the area that could have been brought under cultivation.
1. *Rater* ...	32	14	43·7	1,880	820	43·6
2. *Barani* ...	64	26	40·6	2,560	1,115	43·5
3. *Niain* ...	40	14	35	600	150	25
4. *Sailab* ...	184	56	30·4	7,600	2,580	34
5. *Maira* ...	32	8	25	680	180	26·5
6. *Abi* ...	48	15	31·2	2,320	775	30·8

APPENDIX TO CHAPTER IV.

A short note on Seeds.

When well off and prosperous, the *zamindar* tries to keep over that portion of the crop which he considers the best as seed. If no seed has been preserved, any kind of grain is sometimes accepted as seed. In Bairampur seeds are sometimes obtained through the Co-operative Credit Bank or the Union at Chotahla. Sometimes, though not in these villages, seeds are obtained through the Inspector of Agriculture. On the whole, the seed used is not often the best because—

(*a*) sometimes, even if the help of the Inspector of Agriculture is sought in obtaining the seed, it is not received in time, so that the *zamindar* is compelled to make his purchase from the local market;

(*b*) sometimes the distance of the Stores is so great, that it is, practically speaking, prohibitive;

(*c*) though the seed is good, its price is higher than that of the local varieties and sometimes the cultivator prefers to purchase the cheaper commodity;

(*d*) sometimes the *zamindar* has no money, and he is compelled to borrow seed from a money or grain lender, and the quality of such seed, generally speaking, is not good;

(*e*) when new and better kinds of seeds are introduced, the *zamindar*, being not sure of their germination, is not willing to use them.

CHAPTER V.

A.—RENTS, WAGES AND PRICES.

B.—LAND REVENUE AND TACCAVI.

A.—Rents, Wages and Prices.

Rents.

The total cultivated area of Bairampur in 1918-19 was 240 acres and of these 87 acres were cultivated by tenants of various kinds, 23 acres by the occupancy tenants, 8 acres by the tenants cultivating free of charge or at nominal rates, 42 acres by the tenants paying at *batai* rates, and 14 acres by the tenants paying cash rents. That the area cultivated by tenants-at-will has been on the increase since 1890-91 (Table No. IX) has already been brought to the notice of the reader. The same, practically speaking, has been the case with the area cultivated by tenants-at-will paying cash rents. So far as the *zemindar* or the land-owner himself is concerned, he prefers to let his land on *batai* rents or rents in kind, unless the soil is of inferior quality, when he prefers to let it for cash rent. There is no dearth of cultivators and consequently the landlord has his own way, though the tenant would prefer to work the land in exchange for cash rents: it saves him a great deal of unnecessary trouble and the yield too is greater for he works the land more carefully and intensively. Moreover, whatever the form of rent, the tenant neither can, nor does expect any kind of help, financial or otherwise, from the landlord.

Out of the 14 acres of land let on cash rents in 1918-19, about 3 acres were of *barani* land and 9 acres of *sailab* land. The rents paid amounted to Rs. 112 and Rs. 224 or about Rs. 37-5-0 and Rs. 24-4-0 per acre, respectively.

The table below will show that the rents on *sailab* lands have been on the decrease, while those on the *barani* ones have been on the increase :—

YEAR.		RENT PER ACRE, IN RUPEES, ON	
		Barani land.	Sailab land.
1910-11	...	25·9	30·6
1914-15	...	23·5	29·8
1918-19	...	37·3	24·25

There were less than 2 acres of (*sailab* and *barani*) mixed lands let on cash rents, and it will perhaps be a waste of time to calculate separately rents on each kind of soil. As has already been pointed out it is seldom that good pieces of land are let on cash rents and consequently cash rents cannot be treated as a fair guide for ascertaining the letting-value of land. The table with regard to the rents on *barani* and *sailab* lands should also be considered with a certain amount of reserve.

Rents in kind mean, generally speaking, the *batai* rates, the landlord and the tenant sharing by halves the produce,* including straw. The produce, say wheat, is divided with the help of a measure (generally an earthen vessel) ; the straw is collected into two equal heaps by the tenant and the landowner selects one of them as his. In the case of exceptionally fertile pieces of land, the landowner, in addition to half the produce, charges half the land-revenue payable on account of that particular piece, too.

The division of sugarcane is made on the basis of *gur* and the landowner may sometimes lend his pressing-mill to the tenant. Mortgagees with possession let their lands on the same terms as the others do. No instance was found in which the rent of a piece of land may have been increased on account of its high mortgage value. *Zabti* rents are unknown.

It may be remarked in this connection that the land cultivated by tenants-at-will is carelessly worked. Manure, unless abundant,—and that is rarely the case—is not used and consequently the yield too is below the average. In order to check the continuous deterioration in the quality of a particular piece of land, the *zemindar*, occasionally, lets it to a Chamar or someone else who possesses cattle, though not a plough or plough-cattle, at *batai* rates. The *zemindar* ploughs the land, while the Chamar throws all the manure, produced by his cattle into that particular piece, and does the rest.

Wages.

Labourers employed occasionally, especially at the time of hoeing and weeding, are paid, in cash, between 6 and

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*It is the net produce, in fact, that is shared by halves. Payments to the *kamins* and others are made out of the common heap.

7 annas a day. They are also sometimes entertained at the *chha-wela*.* Those who are employed for cutting the crop or for any other purpose at the harvest time are paid, and prefer to receive, wages in kind. The family *kamins* receive a share of the produce or are paid at so much per *hal*† or plough. The *kamins* are of three kinds :—

(1) Those whose services are mainly required for agricultural purposes. Under this category fall the *lohar* (smith), the *tarkhan* (carpenter) and the *chamar*. The smith receives a *bhari*‡ and a half of wheat in *rabi* and of maize in *kharif*, at the harvest time. At the time of cutting the crops he visits (*phera*) the fields twice or thrice, to sharpen the *dranties* sickles), and receives a *kalawa*, one-fourth of a *bhari*, on the occasion of each such visit. If the sugarcane pressing mill is a *lhot ka belna*, iron roller mill, it is he who repairs and sets it up. For this service he is paid Rs. 2. He is given an occasional drink of the juice, and also a *ghara* full of juice, or one seer (*kham*) of *gur*. On all ceremonial occasions—birth of the eldest son, betrothal or marriage of a son, marriage of a daughter, etc.—he receives his *haqs* and *lags*, " customary dues." §

The wages of a carpenter|| are the same as those of a smith, except in so far that at the time of cutting the crops he visits the field only once. If the sugarcane press is a *kathra*, wooden one, he sets it up and repairs it, and receives the customary sum of Rs. 2. The daily wages of a carpenter, if he is engaged for house building or other similar purpose, are about one rupee a day.

A Chamar, if he is a *separ* (permanent *kamin*), receives a *bhari* for the general help rendered by him, during the year, on the occasion of each one of the harvests. He receives

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***Chhawela* = morning-meal

†*Hal*=Plough. It means, practically, any area of land on which is made to work only one plough.

‡*Bhari* = A bundle of unthreshed crops of generally wheat and maize. The average yield of a *bhari* is 8 seers of grain.

§See Chapter X.

||While the crop is still on the threshing floor, both he and the smith receive *phakka*, about 4 seers of grain, each.

in addition a *bhari* and a quarter every day as a *lava* (reaper) on the occasion of cutting the crops. For winnowing he is paid at the rate of a seer for every maund of grain winnowed. He is also the recipient of *pir-thala* and *sarhana*—about four seers of grain on the threshing floor. On the occasion of betrothals, marriages and other such occasions he receives *inams* (gifts), *haqs* and *lags* The dead cattle belong to him, and are, in fact, a remuneration for his rendering service as a *begari.*

(2) The *khangi** *kamins* too receive a share while the crop is still on the threshing floor, the *Jhiwar* or *kahar*—the water-carrier—gets 8 seers of grain—wheat or maize—for every *ghara* full of water supplied twice a day for a period of six months. The *dhobi* (washerman) and the *nai* (barber) get about ten seers of grain each. The dues of the *mirasi* (singer and jester) and the *bharai* (the drum-beater and singer) are not fixed. They get about 2 or 3 seers of grain. All these *kamins* get their *inams, lags* and *haqs,* on ceremonial and other occasions. There are no permanent *kumhar* (potter), *chuhra* (sweeper) and *darzi* (tailor) *kamins* in Bairampur. The last two are mostly found in Rajput villages alone.

(3) The *panda,* the *prohit* (both of them Brahmans) and the Bhaiji (the Sikh-priest) might be termed as the religious *kamins.* Their shares are not fixed, but they do get something on the occasion of every harvest. In a sense, the wages paid to the religious *kamins* are the piece rate wages ; for everything that they do in connection with the performance of ceremonies on the occasions of betrothals, marriages, deaths, etc., they are paid *lags,* customary dues.†

Prices.

The relation of prices to the acreage under some of the important crops, for the last ten years, has already been tabulated in Chapter IV. For the rise and fall in prices of other commodities the reader is referred to Tables Nos. XX and XXI on pages 88-91. All that need be examined here is as to how exactly the prices are fixed between the *zemindar* and the tradesman and, secondly, as to what has been the effect of the rise in prices on the *zemindars.*

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*. Those whose services are mainly required at home.

†For further details with regard to the *lags* and *haqs* of the *kamins,* please see Chapter X.

In the old days when the *zemindar* was heavily indebted to the *sahukar* and the Land Alienation Act did not exist, most of the produce was carried away by the money-lender and the rate of sale fixed was, generally speaking, very unfavourable to the *zemindar*. As the *zemindar* prospered or transferred his indebtedness to the Co-operative Credit Societies, he refused to sell to the money-lender and often carried his produce to, and sold the same in, the open market. This was the second stage, and here, too, the *zemindar* being a bad bargainer and often ignorant of the conditions of the market, was sometimes a loser. The prevailing high prices of the food-stuffs and other things have ushered in the present practice (which might be termed the third stage). The *zemindar* does not carry his produce to the market. When the harvest is in, he visits the market and enquires the rates at which commodities are selling. When the dealers in grain or their agents appear in the villages, the prices are settled between the parties, sometimes, with the help of the village shop-keeper. The rates at which the *zemindar* sells are a bit lower than those prevailing in the neighbouring market. The produce may be weighed by the purchaser and the *zemindar* watches the operation. Occasionally, though rarely, he conducts the weighing operation himself. The help of the village shop-keeper is often taken. He is paid something for his work and the weighing is done by him. Sometimes the grain-dealer meets the shop-keeper before he does the *zemindar* and bribes him. The shop-keeper then weighs more than he ought to—the Jat being not a good judge of a balance and its working. Sometimes the shop-keeper keeps two sets of weights; one for making purchases and the other for making sales. This happens especially in the case of the weighments made in terms of *kacha* seers. There are no special or "stamped" weights for the purpose available in the market and consequently the weights are specially made by the shop-keeper of stones and bricks.*

But the kind of dishonest dealing mentioned above is not frequent; at least the writer did not meet with many instances of the kind. In the poor villages, Kutabpur for example, an intermediate stage, between the old and the new methods of sale is in vogue. A portion of the crop is taken away by the *sahukar*, at rates cheaper than those at which the *zemindar* sells to others, and the rest is sold, by the *zemindar*, to the grain dealers or their agents. As to what portion of the produce is to be sold by a *zemindar* to people other than the money-lender depends on his financial condition and the intensity of his desire, to seek in future, the help of the money-lender. If the money-lender is a non agriculturist, as is generally the case, the *zemindar* is bolder than if he is an agriculturist ; the latter wields a greater influence because he is not affected by the Land Alienation Act.

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*Some of the weights of this type, used by the shop-keeper in Bairampur, for making retail sales were examined and found less than what they should have been.

The large land-owners have profited a lot by the rise in prices. The sales of the surplus yields have made them prosperous. The small owners have suffered. The commodities that they used to purchase are being sold at higher rates and they neither have, nor had before, large surpluses to sell. This is especially the case with the Rajputs at Kutabpur, whose produce has not increased, who in normal years too hardly produced enough to make the two ends meet and whose standard of living is the same as it was before the war ; these and such like have suffered terribly and their debts have greatly increased.

TABLES NOS. XX AND XXI.

SHOWING THE PRICES (IN SEERS PER RUPEE) OF IMPORTANT CROPS IN THE SIRWAL CIRCLE, FROM 1910 TO 1919.

TABLE No.

Showing the Prices (in seers per rupee) of the important

Year.		Rice.	Maize.	*Bajra.*	*China.*	*Swank.*	*Moth.*	*Munji.*	*Mash.*	*Kulth.*
1910	...	19½	24	16½	31	32	17	18½	14	...
1911	...	18	21	18½	21½	18	14½	9½	8	18½
1912	...	15½	19½	17½	23	16	14	10½	10	...
1913	...	18½	18½	13	20	19	13½	9	9	...
1914	...	14	13	11	16	15	11	8	8	...
1915		13	13½	14	18	16	11	8	8	...
1916	...	14	16	15	18	17	12	8	8	...
1917	..	15½	11½	12	16	13	10	8½	7¾	13
1918	...	8½	8	7	9	9	6	3	3	...
1919	...	8½	10	7¼	9¼	8	6½	3¼	4¼	...

XX.

Kharif *Crops in the Sirwal Circle, from 1910 to 1919.*

Sugarcane.	Cotton.	Hemp.	Indigo.	Fruits.	Vegetables.	*Taramira.*	Chillies.	Fodder, per acre.
11	5	9½	1½	...	...	3½	4	42 8 0
7½	5	8	⅜	...	...	3	4½	38 8 0
8	5	8½	...	...	...	...	...	40 0 0
10	6	8½	1	80	...	5	5	40 0 0
9	9	...	...	30	...	...	...	56 0 0
7	6	6	...	...	...	...	...	55 0 0
6	5	5	17 Ch.	...	...	3	4	...
7	3½	6½	½S.	...	..	3	3	81 0 0
5	2½	4	½S.	33¼	...	2¼	1½	...
5	3	3¼	2	30	...	3	2	53 0 0

TABLE

Showing the Prices (in seers per rupee) of the important

Year.		Wheat.	Barley.	Wheat and barley.	Gram.	Wheat and gram.	*Masur.*	Barley and *masur.*	Fruits.	Linseed.	Rape and others.
1910	...	16	23	18½	19½	18	18½	20½	...	8½	8⅓
1911	...	17	23½	19⅓	20⅓	18½	19⅓	21½	...	8	8
1912	..	15	19	18	15	15⅓	13⅓	16	...	6	6
1913	...	14	17	15⅓	15	15	13	14	...	6	6
1914	...	13½	16⅓	14½	14	14	12⅓	14½	...	6½	6
1915	...	11	16	13	13	12	13	11	...	7½	8
1916	...	14	16	16	14	14	15	11	8	7	8
1917	...	12	16	15	13	12½	11¾	9	...	6⅓	8¾
1918	...	$10\frac{1}{16}$	15	12	11⅓	11	12¾	9¾	8	$6\frac{3}{16}$	$7\frac{1}{16}$
1919	...	7	10	8	7	7	8	6	40	4	3

No. XXI.

Rabi *Crops in the Sirwal Circle from 1910 to 1919.*

Taramira.	*Toria.*	Vegetables.	Melon.	Water-melon.	Others.	Poppy.	Tobacco.	Spices.	*Senji* (rupees per acre).	*Methi* (rupees per acre.)	Fodder, per acre.
										Rs. A. P.	Rs. A. P.
10	9½	...	...	...	...	3½	8½	2½	...	...	40 0 0
9½	8⅓	...	...	...	...	4	8	1	...	...	52 8 0
8½	8⅓	31	32⅓	41½	...	...	8	2	...	...	50 0 0
7½	7	...	...	...	...	...	11½	1	...	...	57 8 0
7	7	36	39	37½	...	...	11	6	...	...	62 8 0
10	8	34	...	...	2	8	...	9	70	101 0 0	...
10	9	48	40	44	4	8	...	3	60	90 0 0	...
10	9	36	18	60	...	3¾	10	...	60	90 0 0	...
6½	$6\frac{5}{32}$	40	$17\frac{1}{16}$	80	...	$1\frac{7}{16}$	7	...	...	120 0 0	...
4	3	26	34	53	...	2	7	2	101	101 0 0	...

B.—Land Revenue and Taccavi.

No account need be given of the settlement operations and as to how they are conducted. Immediately after the British occupation, about the same land revenue was imposed as under the Sikhs. After the first regular settlement it was increased. The fixed land revenue as imposed at the various settlements has been tabulated in Table No. XXII below :—

TABLE No. XXII.

Showing the Land revenue and Cesses imposed on Bairampur at the various settlements and their incidence per acre.

Year.	Revenue in rupees.	Incidence per acre on total area.	Incidence per acre on cultivated area.	Rates and cesses.	Total land revenue and rate and cesses.	Incidence per acre on total area.	Incidence per acre on cultivated area.
	Rs.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1846-47 ...	625	1 13 9	...	49 12 0	647 12 0	2 0 1	...
1852-53 ...	775	2 6 5	...	109 12 0	884 12 0	2 10 8	...
1884-85 ..	873	2 9 7	3 8 4	197 0 0	1,070 0 0	3 2 11	4 5 0
1910-11 ..	925	2 15 7	3 14 2	142 0 0	1,067 0 0	3 2 9	4 7 0

It will be noticed that it has been increased on the occasion of each one of the settlements. But although it was fixed, the actual payments made by the village have varied, on account of alluvion and diluvion or *baramdi* and *burdi*, due to the action of the *choh*. The *wajib-ul-arz* for each one of the villages contains among others the following conditions with regard to alluvion and diluvion:—

1. "*Alluvion.*—Whenever land now unculturable is made culturable by the action of rivers, torrents, or sand drift, it will be assessed, provided that no sum shall be added of less than one rupee in amount."

2. "*Diluvion.*—Reduction for diluvion or other injury by rivers and floods will not be given, unless at least one holding in the village has suffered injury to the extent of one-twentieth of its assessment."

Thus, although the land revenue fixed and imposed on the village of Bairampur in 1910-11 was Rs. 925 per annum, the actual sum paid in 1918-19, as a perusal of the Table No. XXIII below will show, amounted to Rs. 913 only :—

TABLE No. XXIII.

Showing the Land Revenue and Cesses, actually paid by the village of Bairampur from 1914-15 to 1918-19.

Year.	Land revenue in rupees.	Incidence per acre on matured area.			Local rates and cesses.			Total land revenue and local rates and cesses.			Incidence per acre on matured area.		
	Rs.	Rs.	A.	P.	Rs.	A.	P.	Rs	A.	P.	Rs.	A.	P.
1914-15* ...	785	3	2	8	121	0	0	906	0	0	3	10	5
1915-16 ...	925	3	15	0	142	0	0	1,067	0	0	4	8	8
1916-17 ...	925	3	11	8	142	0	0	1,067	0	0	4	4	10
1917-18 ...	923	3	10	6	142	0	0	1,067	0	0	4	3	6
1918-19 ...	913	2	13	6	140	2	6	1,053	2	6	3	4	6

*Land revenue was paid at the new rates with effect from the *kharif* of this year.

Someone has said that the Indian budget is a gamble in rain. With regard to the land revenue in a large number of villages in the Hoshiarpur Tahsil, it may be said that it is a gamble in *choh*-action.

As to whether the land revenue is paid with ease or difficulty, depends on the crops, the area cultivated and the state of the family itself. The money for land revenue is always obtained, even if on some occasions the family cannot afford to do so, somehow or the other. No one likes to be brought to a court for non-payment of land revenue. Out of the 14 people from whom enquiries were made, in Bairampur, with regard to the means of their obtaining money for the payment of land-revenue,—

1 borrowed from the Co-operative Credit Society ;

1 borrowed from a *sahukar* ;

1 sold an ox ;

1 paid his *panjotra* or *lambardari* allowance and also sold wheat ;

1 paid money which he had received from his son, a *jamadar* in the army ;

1 had saved something from his proceeds on account of the sale of *gur* and also sold some wheat ;

6 paid the proceeds of the sale of wheat and *bhusa* ;

1 did not pay in time and the *lambardar* had to pay his dues out of his own pocket ;

1 paid the money that he had received from his tenants.

Generally speaking, land revenue is paid out of the proceeds from the sale of *gur* and wheat, and occasionally the money is borrowed. Many a Jat of Mukimpur payss his share of the land revenue by plying carts and *gaddas*, between Hariana and Hoshiarpur, Jullundur, and, during the mango-season, Amritsar. Coercive processes for the recovery of land revenue are unknown, the *lambardar*, in case of necesity, pays the money out of his own pocket, if possible, or, borrows. In the latter case, the money is collected with interest, the rate being the same which was actually paid by the *lambardar*.

As regards the dates of payment of land revenue, there are two views. Those who are poor hold that the dates suit them and their circumstances well. As soon as the harvest is in, they sell a part and pay the Government off. In the latter part of the year and even two or three months after the dates fixed at present, it will perhaps not be possible for them to meet the demand; some portion of the crop will be eaten up, some carried away by the money-lender or sold to pay the debts or their interest and another portion will be sold to purchase things from the *bazar*. Those who are well off, hold, on the other hand, that it will be to their interest, if they were called upon to pay land revenue a month or two later than at present. The dates of payment of land revenue and of bringing in the harvest fall together. In order to meet the demand of the Government they are often compelled to sell their produce at unfavourable prices. If the dates of payment of land revenue were to fall some time later, they could sell their produce at rates more favourable to themselves.

Taccavi is unknown to a majority of the villagers. Even when the meanings and object of *taccavi* loans were explained, they said they had better never borrow from the Government, for the instalments in liquidation of the debt shall have to be paid regularly and sometimes it was beyond their power to do so: the crops may fail, or some marriage or other event may take place.

CHAPTER VI.—MORTGAGES, SALES AND REDEMPTIONS.

The total area under mortgage, in Bairampur, is 13·3 acres or 3·9 per cent., of which 6·9 acres, valued at Rs. 3,091, are mortgaged to the villagers themselves and the rest 6·4 acres, valued at Rs. 2,059, to others, all agriculturists. The reasons for mortgages are many. Most frequently land is mortgaged to pay off debts, paternal or personal. Occasionally it is mortgaged to meet ceremonial or other expenses. Of the 14 cases enquired into, the following were the reasons :—

To pay off personal debts	4
To pay off ancestral debts	2
To pay off debts and purchase cattle ...	1
To pay land revenue and interest on old debt ...	1
To pay land revenue and purchase food stuffs ...	1
Marriage	1
Purchase of a wife	1
Deficiency of food and to meet expenses connected with social customs	1
Purchase of cattle	1
To bribe the police*	1

The area under mortgage has fallen and fluctuates a great deal. A reference to columns Nos. 6 and 4 of Tables Nos. XXIV and XXV respectively will at once show that the mortgage price of land has risen considerably.

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* Some bachelors—4 Jats and 1 Gujar—of the village started a sort of a club. On his turn, each one of the members was expected to bring some almonds, milk and sugar to a fixed place and the friends crushed the almonds, mixed them with milk, sugar and water and drank the mixture together. On Chabi's turn he refused to bring the things at once, though he assured his friends that he would do so after some time and in order to prove his sincerity he told them of the place where his money was buried. Some days after, the Gujar entered Chabi's house and stealing the money fled to Jullundur. Chabi reported the matter at the thana and lodged complaint against all the members of the club. The *thanedar* on visiting the place did not feel convinced of Chabi's statement and showering some abuses on Chabi went back to Garhdiwala. On the *thanedar's* leaving the place, his old friends and acquaintances began to make a fool of Chabi. In order to maintain his *izzat* he mortgaged a piece of land and with the proceeds bribed the *thanedar*, who visited Bairampur once more, cursed and abused the members of the club (excepting Chabi) and then left the place. This misadventure of Chabi has not been forgotten and the people are often heard enjoying a laugh at his cost.

TABLE No. XXIV.

SHOWING THE MORTGAGES MADE, IN BAIRAMPUR, BETWEEN 1893 AND 1918-19.

TABLE

Showing the Mortgages made, in Bairampur,

Name of mortgagor.		Caste.	Year of mortgage.	Total area Cultivated area owned by mortgagor.	Total area Cultivated area mortgaged.	Mortgage debt.	Land revenue.		
						Rs.	Rs.	A.	P.
Chuna Mal	...	*N.A.	1893	3·8 3·2	2·2 2·2	400	10	0	0
Bhagu ...	...	Jat.	1894	9·3 5·5	·23 ·23	18	0	13	3
Bell, etc. ...	...	„	1895	14·1 10·3	·75 ·75	66	2	9	6
Nathu, etc.	...	„	1895	6·7 3·9	·28 ·28	40	0	15	3
Chabi ...	...	„	1895	8·5 6·7	·6 ·6	108	2	2	3
Chhajju ...	...	„	1895	4·8 3·8	·38 ·38	43	1	5	3
Uttam, etc.	...	„	1895	40 25·2	2 1·8	318	7	3	9
Isher ...	...	„	1895	16 2 11·5	·38 ·38	41	1	5	0
Bhajju ...	...	„	1896	4·8 3·8	·2 ·2	46	0	10	3
Do. ...	...	„	1896	4·8 3·8	·2 ·2	included above.	0	9	3
Bhana ...	...	„	1896	4·75 3·1	·8 ·7	150	2	11	3
Amian, etc.	...	„	1896	40 252·	·5 ·2	35	0	15	6

*N.A.=Non-

No XXIV

between 1893 and 1918-19.

MORTGAGE DEBT.	Date of redemption.	Caste of mortgagee.	REMARKS.
Land revenue.			
40	1907	Non-agriculturist.	
21·7	...	Jats of Bairampur.	
25·3	1898	Ditto.	
41·9	1898	Jhiwar.	
50·1	1904	Jats of Bairampur.	
32·3	1903	Ditto ...	To pay off debts. (Remortgaged the same for Rs. 500.)
43·9	1917	Ditto.	
31·2	1898	Weaver of Bairampur.	
71·8	1898	Weaver who mortgaged to a Jat of Bairampur in 1897.	
...	1898	Ditto ditto.	
55·4	1898	Jat of Bairampur ...	To maintain a large family and to meet expenditure on account of social customs connected with the marriage of a relative.
53·3	1898	Ditto.	

agriculturist.

TABLE

Showing the Mortgages made, in Bairampur.

Name of mortgagor.	Caste.	Year of mortgage.	Total area / Cultivated area owned by mortgagor.	Total area / Cultivated area mortgaged.	Mertgage debt.	Land revenue.		
					Rs.	Rs.	A.	P.
Chabi	Jat	1897	9·5 / 6·6	·6 / ·5	112	2	2	3
Moti	„	1897	...	·04 / ·04	50	0	2	9
Do.	„	1897	...	·38 / ·38	...	1	3	6
Nabi	„	1897	9 5 / 6 6	·7 / ·7	127	1	5	0
Raju	„	1898	3·8 / 3·2	·4 / ·4	50	1	8	0
Bhaju	„	1899	4·8 / 3·8	·2 / ·2	30	0	9	6
Do.	„	1899	...	·1 / ·1	..	0	6	0
Kashi, etc. ...	*N.A.	1900	3·8 / 3·2	·3 Garden. / ·3	70	1	4	0
Amian, etc. ...	Jat	1900	40 / 25·2	1·5 / 1·5	650	5	2	9
Chhaju	„	1901	4·8 / 3·8	·12 / ·12	92	0	7	0
Likar	„	1902	5·2 / 3·9	·2 / ·2	50	0	13	0
Do. ...	„	1902	5·2 / 3·9	·2 / ·2	90	0	14	0

*N.A.=Non-

No. XXIV—CONTINUED.

between 1893 and 1918-19—continued.

MORTGAGE DEBT.			
Land revenue.	Date of redemption.	Caste of mortgagee.	REMARKS.
53·8	1898	Jat of Bairampur ...	To discharge his father's debt.
35·8	1892	Ditto.	
	1898	Ditto.	
96·3	1898	Ditto	To discharge his father's debt.
33·3	1903	Weaver.	
31	1906	Jats of Bairampur ...	To pay land revenue and interest on debt.
	1906	Ditto.	
56	1910	Ditto.	
125·6	1910	Non-agriculturist ...	To pay off debts. (Redeemed and re-mortgaged for Rs. 950 in the hands of one of the Jats in the village in 1920.)
210·3	1909	Jats of Bairampur.	
61·5	1905	Ditto.	
102·8	1905	Ditto.	

agriculturist.

TABLE

Showing the Mortgages made, in Bairampur,

Name of mortgagor.	Caste.	Year of mortgage.	Total area owned by the mortgagor.	Cultivated area owned by the mortgagor.	Total area mortgaged.	Cultivated area mortgaged.	Mortgage debt.	Land revenue.		
							Rs.	Rs.	A.	P.
Khushala	Jat	1902	4·06	3·26	·4	·4	100	1	5	9
Bhajju	,,	1903	10·9	9·5	·4	·3	43	1	5	9
Uttam, etc.	,,	1903	40	25·2	·4	·4	100	1	4	6
Isher	,,	1905	16·2	11·5	·4	·4	75	1	5	0
Raju	,,	1906	3·8	3·3	·4	·4	100	1	4	9
Isher, etc.	,,	1906	14·21	8·9	·4	·4	100	1	5	0
Ditto	,,	1906	5·31	4·08	·3	·3	80	0	14	9
Chahi, etc.	,,	1909	10·13	7·23	·42	·4	100	1	8	3
Karm Parkash	,,	1909	13·5	10·8	·25	·25	8	0	7	0
Ditto	,,	1909			·1	·1	50	0	4	0
Isher, etc.	,,	1914	14·21	8·9	·2	·2	100	0	14	0

No. XXIV—CONTINUED.

between 1893 and 1918-19—continued.

MORTGAGE DEBT.	Date of redemption.	Caste of mortgagee.	REMARKS.
Land revenue.			
73·5	1905	Jat, outsider.	
32·3	1904	Jat of Bairampur.	
78·04	1905	Ditto.	
57·1	1906	Ditto.	
77·1	1910	Rajput, outsider.	
76·1	...	Jats of Bairampur.	
86·7	1913	Ditto.	
65·9	1912	Ditto	To bribe a police officer.
185·1	1913	Ditto.	
200	1913	Ditto.	
114·2	...	Ditto	To pay land revenue and deficiency of food. (Redeemed 1920 and found money by mortgaging another piece of land.)

TABLE

Showing the Mortgages made, in Bairampur,

Name of mortgagor.	Caste.	Year of mortgage.	Total area / Cultivated area owned by the mortgagor.	Total area / Cultivated area mortgaged.	Mortgage debt.	Land revenue.		
					Rs.	Rs.	A.	P.
Waryam Singh ...	Jat	1913	4·36 / 3·13	·25 / ·25	200	0	11	0
Chhajju, etc. ...	„	1914	5·1 / 4·09	·2 / ·2	100	0	13	3
Isher	„	1914	14·21 / 8·9	·7 / ·7	400	2	9	0
Do.	„	1914		·1	100	0	5	3
Amian, etc. ...	„	1913	40 / 25·2	5 / 4·75	1,450	17	15	0
Isher	„	1916	14·21 / 8.9	1·1 / 1	250	4	4	0
Amian, etc. ...	„	1918	40 / 25·2	·9 / ·9	500	3	4	6
Isher	„	1919	14·21 / 8·9	·4 / ·4	100	1	9	3
Bhajju	„	1890	4·8 / 3·8	·4 / ·3	90	1	3	9
Chalu, etc.... ...	„	1885	10·13 / 7·23	·2 / ·2	41	0	11	0

No. XXIV—CONCLUDED.

between 1893 and 1918-19—concluded.

MORTGAGE DEBT, Land revenue.	Date of redemption.	Caste of mortgagee.	REMARKS.
290·9	1913	Jats of Bairampur ...	Marriage of Waryam Singh.
120·7	1917	Ditto.	
156·09	...	Ditto	To purchase wife who afterwards left him.
156·09	...	Ditto.	
80·8	...	Jat, outsider	To pay off debts.
58·8	1920	Jat of Bairampur ...	To pay off old debts.
152·3	...	Jat, outsider	To purchase a female buffalo.
69·06	...	Ditto	To pay off old debts.
72·9	1920	Gujars of Bairampur ...	Purchase of cattle.
59·6	1920	Jats of Bairampur ...	Mortgaged by Chabi's father ; reason not known.

TABLE No. XXV

Showing the Mortgages made in Bairampur quinquennially from 1895 to 1919.

Mortgages made between		Total area mortgaged.	Cultivated area mortgaged.	Mortgage debt.	Average mortgage value per acre cultivated.	Average mortgage value per acre.	Multiple of land revenue of morgage detbt.
1895—99	...	12	12	1,668	139	139	3·4
1900—04	...	7	7	1,833	263	263	18·8
1903—09	...	1	1	540	540	540	67·5
1910—14	...	Less than an acre	Less than an acre	428	...	...	...
1914—19	...	7	7	2,308	329·7	329·7	12·2

The same tale is repeated by Table No. XXVI dealing with redemptions. The last-mentioned table shows also that the acreage redeemed has fallen of late years :—

TABLE No. XXVI

Showing the Redemptions made in Bairampur between 1895 and 1919.

Redemptions made between.				Total area redeemed.	Cultivated area redeemed.	Money paid on account of redemption.
1895—1899 ...	...	...	...	4·66	4·66	639
1900—1904 ...	...	...	...	5	5	756
1905—1909 ...	...	...	...	6	5	964
1910—1914 ...	...	...	...	3	2	528
1915—1919 ...	...	...	...	1	1	569

But does the redemption of land on the one hand and a fall in the area under mortgage since 1898 (Table No. XXVII) show that the agriculturists have prospered ?

TABLE No. XXVII

Showing the Mortgages made in Bairampur during the years shown below.

Mortgages made between	Number of mortgagors.	Total area mortgaged in acres.	Cultivated area mortgaged.	TOTAL AREA MORTGAGED.	Land revenue assessed on mortgaged area.	TOTAL AREA MORTGAGED.	TOTAL CULTIVATED AREA MORTGAGED.
				Cultivated area		Total area of the village.	Total cultivated area of the village.
1890—91 … … …	17	15	14	1·07	53	·044	·061
1894—95 … … …	12	13	8	1·6	32	·038	·035
1898—99 … … …	19	19	17	1·12	53	·056	·077
1902—03 … … …	23	22	19	1·16	61	·065	·085
1906—07 … … …	16	18	15	1·2	49	·052	·06
1910—11 … … …	15	17	14	1·21	48	·05	·058
1914—15 … … …	16	9	9	1	28	·026	·026
1918—19 … … …	17	15	15	1	55	·044	·062

It may be so, but such a conclusion must be treated with some reserve. On account of high prices land has been and is still redeeming land. An agriculturist who mortgaged some piece of land for a certain sum, some time back, redeems that piece and remortgages a smaller area for a higher sum of money. The instances given below will make the meaning clear :—

1. In 1905 Isher and others mortgaged ·4 acre of land for Rs. 75,
2. In 1906 No. 1 was redeemed and remortgaged for Rs. 100,
3. In 1913 No. 2 was redeemed for Rs. 100, and
4. In 1914 ·2 acre (out of ·4 acre) were remortgaged for Rs. 100.

In other words, since 1905, mortgage debt had increased from Rs. 75 to Rs. 100, but the area under mortgage had been reduced from ·4 acre to ·2 acre. Another instance may be quoted thus :—

Isher and others mortgaged—

A.— ·1 acre of land for Rs. 100 in 1914.
B.— ·8 „ „ „ „ Rs. 500 „ 1915.
C.—1·1 acres „ „ „ Rs. 250 „ 1916.

Or about 2 acres of land for Rs. 850 between 1914 and 1916. In 1919-20 (B) the piece of ·8 acre was redeemed for Rs. 500 and remortgaged for Rs. 1,000. (A) and (C) the pieces of ·1 acre and 1·1 acres were redeemed and a balance of Rs. 150 obtained. In other words mortgage debt increased by Rs. 150 and the area under mortgage decreased by 1·2 acres ; land has thus been redeemed *not through the exertions of the zemindars,* but by land itself. The *zemindars,* debtors and others have profited by a rise in the price of land, but it does not mean that they have become prosperous too.

The total area under mortgage, as has been noticed before, is 13·2 acres and the mortgagees are all agriculturists. Moreover the whole of the area under mortgage is cultivable. A reference to Table No. XXIV will show that about the same was the case in 1895 and from then onwards, the mortgagees were mostly agriculturists and the mortgage area was all cultivable. That it is not so everywhere can be verified by a reference to Table No. XXVIII, pertaining to Kutabpur. A comparison, in fact, shows clearly, perhaps, some of the effects of the Land Alienation Act.

TABLE No. XXVIII

Showing the existing Mortgages in Kutabpur.

Transfers of land to or between the non-agriculturists are shown in italics.

Mortgagor.	Total area.		Cultivated area.		Caste of the mortgagee.
	Kanals.	Marlas.	Kanals.	Marlas.	
Budha (Rajput) ...	4	11	4	11	Jat of Mukimpur.
Ditto ...	2	19	2	19	Jat of Nangal.
Ditto ...	*21*	*10*	*Nil*		*Khatri.*
Ditto ...	*11*	*4*	*3*	*9*	*Do.*
Ditto ...	1	4	1	4	Jat of Mukimpur.
Kalu	4	15	4	15	Rajput of Kutabpur.
Do.	*7*	*0*	*Nil*		*Khatri.*
Do.	*5*	*9*	*5*	*9*	*Do.*
Budhu and Kalu ...	2	14	2	14	Jat of Naugal.
Ditto ...	2	15	2	15	Ditto.
Ditto ...	*4*	*13*	*4*	*13*	*Brahman.*
Ditto ...	0	18	0	18	Jat of Mukimpur.
Maula and Nathu ...	0	11	0	11	Ditto.
Ghani Bakhsh ...	15	19	15	19	Ditto.
Kadar and others ...	4	8	4	8	Jats of Mukimpur.
Ditto ...	9	10	9	10	Jats of Mukimpur and Ruhali.
Beli, etc., non-agriculturists.	*10*	*6*	*10*	*6*	*Lohars.*
Thakur, etc. non-agriculturists.	*20*	*2*	*20*	*2*	*Khatri.*
Jamu and others, agriculturists.	7	11	*Nil*		Do.
Sultan Bakhsh ...	5	15	5	15	Jats of Mukimpur.
Ditto ...	*1*	*13*	*1*	*13*	*Khatri.*
Munshi and Sultan Bakhsh	29	9	29	9	Lohars and Chamars.
Ditto	*4*	*8*	*4*	*8*	*Dhobi.*
Ditto	18	17	18	17	Jats of Mukimpur.
Nawab Khan ...	8	6	8	6	Jats of Mukimpur.
Ditto ...	8	6	8	6	Ditto.
Fazl Muhammad and others.	9	12	9	12	Ditto.
Ditto	21	15	15	3	Jats of Naugal.
Ditto	*14*	*19*	*14*	*19*	*Khatri.*
Ditto	*5*	*3*	*5*	*3*	*Dhobi.*
Kalu	15	7	15	7	Jats of Mukimpur.
Do.	1	15	1	15	Umra Saini.
Do.	1	4	1	4	Jat of Mukimpur.
Do.	4	8	4	8	Ditto.
Do.	*30*	*9*	*1*	*0*	*Khatri.*

The *zemindars* of Bairampur were relatively well off before the passing of the Act and they are so now. A portion of the land used to be held under mortgage by the villagers themselves in those days and the same is the case now. Quite different is the tale of Kutabpur. The non-agriculturists used to play a prominent part in the mortgage and sale of land in those days and they do so now too. The agriculturists of the neighbouring villages too used to do the same thing and the same is the case now. The difference consists in the following fact Formerly the agriculturist and the non-agriculturist could mortgage all kinds of land. The *zemindar* or the agriculturist refuses now to mortgage uncultivable land. The non-agriculturist cannot easily acquire or mortgage cultivable land and he is therefore willing to, and actually does, mortgage uncultivable land. Hence it is that most of the cultivable land is mortgaged or purchased by the agriculturists and the uncultivable one by the non-agriculturists. The only safety valve lies in the rise in the prices of land, but otherwise the cultivator who was in a bad state then, is in a bad state still. Occasionally, the Land Alienation Act proves a hindrance to his betterment. Muhammad Bakhsh of Kutabpur declared in the presence of a large number of villagers that he had actually suffered badly on account of the Act. He was and still is heavily under debt, on which interest is accumulating at a rapid pace. He desired to round off his affairs by selling a portion of his land, a major part of which is *retar*, sandy. The highest price offered was by a non-agriculturist and he applied for permission to transfer the land. "I spent about Rs. 50, mainly in the shape of gifts," said he, " and yet the application was not granted. Interest is accumulating fast on my debts and I do not know how to face my financial difficulties."

Does it mean, then, that the Land Alienation Act has been a total failure ? As a remedy it has failed, as a corrective it has been a complete success. It has failed to save and protect the poor and helpless *zemindars* ; land is still passing out of the hands of the poor into those of the rich--the bigger fish have eaten and are eating up the smaller ones, though the period of their struggle for existence has been prolonged. It has also resulted in the creation of a new class of agriculturist money-lenders. It has saved those for whom there was a chance of being saved and who wanted simply time and opportunity to get out of the clutches of the money-lender. Taking the case of the heavily indebted and helpless *zemindars* alone, it may be repeated that they would certainly be better off if there were no Act, for they would then be able to sell their lands to the highest bidder. The *zemindar* who is well off is not affected by the Act one way or the other.*

The sales in Bairampur were few. Since 1898, only 6 sales took place and 5 of them, all in 1902 and 1903, were made by non-agriculturists to non-agriculturists; 2 of the transfers being due to the exercise of the right of pre-emption.

Table No. XXIX below clearly shows the smallness of the number and area transferred and the abnormally high prices of land :—

TABLE No. XXIX

Showing the Sales of Land, in Bairampur, between 1898-99 and 1918-19.

Year.	Caste of the seller.	Total area transferred in acres.	Cultivated area transferred.	Consideration money.	Value per acre on total area in rupees.	Value per acre on cultivated area in rupees.	Caste of the purchaser.
1902-03 ...	Non-agriculturist	3·44	3·32	1,785 ——(a) 1,600	565	478(b)	Non-agriculturist.
1902-03 ...	Ditto	·13	·13	62	477	477	Ditto.
1902-03 ...	Ditto	3·32	3·32	1,600	465	478	Exercise of the right of pre-emption.
1902-03 ...	Ditto	2·30	2·22	660	287	294	Non-agriculturist.
1918-19 ...	Jat agriculturist	·1	·07	150	1,500	2,100	Labana agriculturis

(a) Although Rs. 1,600 only were received Rs. 1,785 were written in the deed.

(b) Assuming the price of uncultivable land to be Rs. 100 per acre.

Even the best land cannot yield more than Rs. 7 per *kanal* as annual *chakuta*— cash rent. The land of the type that the Labanas have purchased (item No. 5, Table No. XXIX) will not yield a cash rent of more than Rs. 5 per annum. Assuming the latter sum as the yield in cash rent per *kanal*, an acre would yield a cash rent of Rs. 52-8-0 only, or, in other words, an interest of 2½ per cent. per annum. Assuming that the "net rate" of interest is the same as that offered for the purchase of 5 per cent. income-tax free Government of India war bonds, there is a clear difference of 2½ per cent. per annum. Indian capital is shy and the means of investment few or unknown. The great security value attached to land is also responsible for the high prices. Anything may change but the land, as land will remain. The value of land may therefore be classified under the following heads:—

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*For a further reference to mortgage debts, please see the Chapter on Credit and Banking

(1) The value of land *as a means of income.*

(2) A.—The value of land *as a means of investment.*

B.—The value of land as the *only* means of investment known to the *zemindar* and the masses.

(3) The value of land on account of its *security.*

(4) The "*prestige-value*" of land; the distinction of being called a *Malik* or a landlord.

(5) The "*scarcity-value*" of land. There is a dearth of other industries and consequently the pressure on land is great.

It may be remarked in passing that if 2½ per cent. be assumed as the "net rate of interest" it clearly shows how few and uncertain are the means of investment in the Punjab and how ignorant of them is the agriculturist.

CHAPTER VII.—BANKING AND CREDIT.

The *zemindar* finds it necessary to borrow money, from time to time, for all sorts of purposes, the details of which have been tabulated in Table No. XXXI on pages 118-19. There are only two sources from which he can borrow, the Co-operative Credit Society and the money-lenders.

The Co-operative Credit Society.

A Co-operative Credit Society, with unlimited liability, was established in Bairampur in 1910, and is classed, by the Department, as a first class society. A glance at Table No. XXX on pages 116-17 will show the usefulness of the institution to the villagers.

The number of members in August 1920 was 31. A few of the old members were made to sever their connection with the Society, the cause being mutual jealousy among the office-holders and an attempt made on the part of those who were expelled to capture the whole business of the Society. The Society, at the present moment, is being run very carefully by the President-Secretary, Jawala Ram, one of the *lambardars*. An examination of the accounts, in September 1920, showed that the workers had taken special pains to keep the accounts clear and up to date. It will be noticed that the society has been of material help in enabling the members to pay off their old debts. On an average 28 per cent. of the money borrowed by the members was for this purpose. More than 13 per cent. was borrowed for the purchase of food-grains and *bhusa* in times of need or scarcity and 11 per cent. was borrowed for the purchase of cattle. The rate of interest charged is 9 per cent.; on the whole, though not always, lower than that charged by the money-lenders. Borrowing from the Society saves the *zemindar* much trouble and also the cost of court-fees and other necessary expenses. It should be noticed, however, that the Society has not succeeded in beating down the other lenders completely. Of the total debts of Rs. 4,761 in the village, Rs. 1,456 or 30 per cent. only consist of the loans made by the Society. The following are some of the causes :—

(1) The *zemindar* is still under the impression that if he does not pay back the money borrowed from the Society, on the due date, even if his crops fail, his estates and everything he possesses will be sold.

(2) The chief cause, however, lies in the fact that the money borrowed from the bank is borrowed openly and, therefore, nearly every one knows of a person's indebtedness to the Society. If a *zemindar* is heavily under debt, and the secret is known to others, he is looked down upon and it is not easy for him to get his male children betrothed or married. In order to establish or keep up his reputation, he borrows secretly from money-lenders, or such secrecy is not possible, if he borrows from a Co-operative Society.

(3) When an intelligent *zemindar* finds that he must borrow openly, or borrow a large sum, which the Society or the money-lender cannot or do not lend, or borrow at the lowest rate of interest, or borrow for a long period, he prefers to mortgage his land to the taking of a loan, on which interest shall have to be paid.* It is to the interests of the *zemindar* that he should do so. An example will make the meaning clear. Isher and others mortgaged ·8 acre of land for Rs. 1,000. The lowest rate of interest at which they could have borrowed would have been 9 per cent. The mortgaged land can be taken by them as cultivators, on payment of Rs. 5 per *kanal*, or Rs. 42-8-0 in all, at the most Thus the rate of interest paid by them will be 4·25 per cent. or in other words there will be a saving of 4·75 per cent. in the shape of interest. There are other advantages too : the amount of the loan will not increase and, secondly, a further rise in the mortgage value of land may enable them to redeem a part of the area mortgaged without making any payment.

Sometimes seed and other things are purchased by the Society through the Union at Chotahla. It is a matter of regret that the practice is not followed widely ; there are many possibilities of further development in this direction. So far as the working of the land itself is concerned, it may be mentioned that there does not seem to be any difference between the methods of practice of those who are members of the Society and those who are not.

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* The fact was explained to the writer by a *zemindar*, of whom he enquired the cause of the increase in mortgages

Seventy per cent. of the present loans were found to have been made by money-lenders—agriculturists and non-agriculturists. The agriculturists prefer, however, to mortgage or purchase land to the making of loans without any security. On account of the operation of the Land Alienation Act, the non-agriculturist money-lender charges interest at as high a rate as Rs. 18-12-0 per cent. For the loans made on *bahi*, the account book of the money-lender, higher rates are charged than those made on a written and legal deed or document. For the *hath-udhar*, or casual loans made by the retailers or dealers in goods for making purchases on credit, no interest is charged, if the loan runs for a short period. Whenever seed is lent, the rate charged is *swaya :* after the harvest the *zemindar* has to return 1¼ times the quantity borrowed. Occasionally he has to return 1½ times or double the amount borrowed.

It will not be out of place to mention that the goatherds mostly trade in credit : most of the sales and purchases of goats are made on credit Two or more Gujars, when out in the gardens on grazing expeditions, happen to meet each other. After higgling and bargaining the sale or purchase price is arrived at. The buyer takes a leaf of a tree and offers it to the seller, who accepts the same and the bargain is considered as struck :* the leaf being accepted as the advance money. Payment may afterwards be made in cash, but it is rarely so. On some other occasion, the buyer pays back to the seller, in the same commodity : goats.

The total debts of the village, including the mortgage debts, amount to Rs. 9,911 or Rs. 34·07 *per capita* or Rs. 165·2 per family. Excluding the mortgage debts the total amount owed amounts to Rs. 4,761 or Rs. 79·3 per family or Rs. 16·6 *per capita.* The heaviest debts are among the Jats : Rs. 3,725 or 30·7 *per capita.* For information in detail, with regard to the indebtedness of the various communities, the reader is referred to Table No. XXXI.

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* The process is known as *Tharak Bajana.*

TABLE

Showing briefly the Annual Account of the

Year (with dates).	INCOME										
	Instalments on account of the purchase of shares.	Deposits made.	Loans paid back.			Profits or interest received			Miscellaneous receipts.		
	Rs.	Rs.	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
30th September 1910 to 31st July 1911.	221	610	273	0	0	8	12	0	...		
1st August 1911 to 31st July 1912	146	221	268	6	3	30	5	6	...		
1st August 1912 to 31st July 1913	107	150	190	0	0	64	11	9	0	2	3
1st August 1913 to 31st July 1914	124	1,176	1,610	0	0	177	13	6	2	2	9
1st August 1914 to 31st July 1915	85	10	308	6	9	86	4	3	...		
1st August 1915 to 31st July 1916	130	...	441	9	9	45	2	9	3	10	3
1st August 1916 to 31st July 1917	145	...	689	11	9	157	14	6	6	13	9
1st August 1917 to 31st July 1918	121	...	901	3	1	260	8	0	28	15	6
1st August 1918 to 31st July 1919	154	225	2,040	5	3	195	2	0	51	0	0
1st August 1919 to 31st July 1920	...	1,000	1,397	8	9	175	3	6	...		

No. XXX.

Co-operative Credit Society at Bairampur.

EXPENDITURE.

Fees.	Total.	Return of instalments paid on account of the purchase of shares.	Withdrawal of deposits.	Profits or interest paid on deposits.	Loans issued	Miscellaneous.	Total.
Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.		Rs. A. P.	Rs. A. P.
16 4 0	1,129 0 0	...	...	...	775	6 13 0	781 13 0
1 8 0	667 3 9	...	543 0 0	21 12 0	447	2 0 9	1,013 12 9
0 8 0	512 6 0	...	210 3 3	20 6 9	156	0 2 0	386 12 0
...	3,090 0 3	...	654 0 0	32 5 0	2,423	4 11 6	3,114 6 6
...	489 11 0	...	210 0 0	44 5 3	208	18 10 6	480 15 9
...	620 6 9	...	530 0 0	22 4 0	74	4 9 6	630 13 6
...	999 8 0	...	...	...	951	7 4 0	958 4 0
...	1,301 11 3	...	...	...	1,332	22 5 0	1,354 5 0
3 0 0	2,668 7 3	275	225 0 0	...	2,164	7 8 0	2,672 3 0
..	2,576 12 3	...	...	...	2,210	24 13 0	2,234 13 0

TABLE

Showing the Indebtedness of

Reason or object for which the loan was taken.	Borrowed from the Co-operative Credit Society.						Borrowed	
	Jats.	Gujars.	Chamars.	Others.	Rate of interest.	Total.	Jats.	Gujars.
1. Purchase of cattle ...	150	60	40	...	9 per cent.	250	150	...
2. Purchase of land ...	...	...	...	75	9 per cent.	75	100	...
3. Family expenses ...	65	...	...	40	9 per cent.	105	...	...
4. Payment of land revenue	...	...	...	...	...	...	...	...
5. Payment of rent of land	...	17	...	...	...	17	...	...
6. Celebration of marriage and other social ceremonies.	...	...	6	73	9 per cent.	79	100	...
7. Performance of funeral rites.	...	...	...	...	...	...	...	50
8. Purchase of grain ...	11	...	15	..	9 per cent.	26	...	...
9. House building ...	380	...	...	...	9 per cent.	380	...	...
10. Payment of land revenue and rent of land.	40	...	...	...	9 per cent.	40	...	...
11. Purchase of *bhusa* ...	20	...	...	...	9 per cent.	20	...	...
12. To pay off old debts ...	240	180	...	...	9 per cent.	420	300	...
13. Pilgrimage ...	44	...	...	...	9 per cent.	44	...	...
14. Old debts outstanding for a year or more.	...	...	...	...	...	...	60 900	...
15. Payment of land revnue, rent of land and purchase of *bhusa* and grain.	...	...	...	...	...	...	...	...
Total ...	950	257	61	188	...	1,456	1,610	50
Percentage ...	19·9	5·4	1·2	3·9	...	30·6	33·8	1·04

No. XXXI.

the people of Bairampur.

FROM MONEY-LENDERS BY WRITING DEEDS.				BORROWED BY AFFIXING A STAMP ON THE ACCOUNT BOOKS OF MONEY-LENDERS.					GRAND TOTAL.
Chamars.	Others.	Rate of interest.	Total.	Jats.	Gujars.	Chamars and others.	Rate of interest.	Total.	
20	...	18 per cent. 18-12-0 per cent.	170	80 300 205 60	...	...	15 per cent. 9 per cent. 18-12-0 per cent. 15 per cent.	645	1,065 (22·3 per cent.)
...	...	15 per cent.	100	...	...	...	9 per cent.	...	175 (3·7 per cent.)
...	...	...	...	100	..	...	9 per cent.	100	205 (4·3 per cent.)
...	...	...	...	20	...	...	15 per cent.	20	20 (·4 per cent.)
...	...	...	...	100	..	...	9 per cent.	100	117 (2·4 per cent.)
100 50	250	15 per cent. 18 per cent. 18-12-0 per cent. 18-12-0 per cent.	500		...	...	...	...	579 (12·1 per cent.)
...	...	15 per cent.	50	...	60	...	15 per cent.	60	110 (2·3 per cent.)
...	...	...	...	...	...	...	...	...	28 (6 per cent.)
...	...	...	...	...	..	...	...	...	380 (·3 per cent.).
...	...	...	...	...	...	...	...	...	40 (·8 per cent.)
...	...	...	...	...	...	...	...	...	20 (·4 per cent.)
...	...	9 per cent.	300	...	...	...	...	...	720 (15·1 per cent.)
...	...	...	...	...	...	...	...	...	44 (·9 per cent.)
...	...	12 per cent. 18 per cent.	960	...	...	...	...	...	960 (20·1 per cent.)
...	...		...	300	...	...	18 per cent.	300	300 (6 per cent.)
170	250	...	2,080	1,165	60	...	...	1,225	4,761
3·6	5·2	...	43·7	24·7	1·2	...	...	25·5	100

CHAPTER VIII.—COST OF CULTIVATION AND YIELDS.

It is a difficult task to estimate the cost of cultivation or yields on a farm or a holding. Generally speaking with the exception of wheat and maize and *gur*, the *zemindar* does not measure his yield of a crop, and whenever he does, it is done very roughly. With the help of the *khasra-i-girdawari*, the actual crops raised on certain holdings in *kharif* 1919 and *rabi* 1920 were noted in a tabular form, and on the basis of these were calculated the cost of cultivation and yields of wheat and sugarcane on the holding of Jawala and Babu, whose returns seemed to be the most reliable :—

	Acres.
Total area of the holding	19·93
Cultivable area of the holding	13·54

Cattle kept on the farm—

	Rs.
1 ox, aged 5 years, valued at	80
1 male buffalo, aged 6 years, valued at ...	35
1 cow yielding 5 seers of milk, valued at ...	51
1 female buffalo, brought up at home (dry)	
1 female calf 1 female-buffalo } Young stock.	

On an average 5 cattle which are daily fed.

Cost of feeding the cattle—Fodder was neither purchased nor sold.

The yield of *bhusa* may be estimated at two *tangars* per kanal

The area under wheat and gram in *Rabi* 1920 was about 70 *kanals*.

The yield in terms of *tangars* was about 140 *tangars*.

	Rs.	A.	P.
*Value of 140 *tangars* of *bhusa* at Re. 1 per *tangar*	140	0	0
Fodder raised during the *rabi*—			
Total area 9 *kanals*.			
Carried over ...	140	0	0

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* The value is estimated on the basis of the prices prevailing at Bairampur and the area round about in 1920.

	Rs.	A.	P.
Brought forward	140	0	0
Matured area 5 *kanals* 16 *marlas*.			
Value of 5 *kanals* and 16 *marlas* of fodder at Rs. 10 per *kanal* (Table of Prices, No. XXI)	58	0	0
Fodder raised during the *kharif*—			
Total area 16 *kanals* 19 *marlas* (all mature)			
Value of 16 *kanals* 19 *marlas* of fodder at Rs. 5-3-3 per *kanal* (Table of Prices, No. XX)	88	3	1
Fodder obtained from the maize crop on 24 *kanals* 13 *marlas* (all mature), 160 *bharis*.			
* Value of 160 *bharis* @ 13 *bharis* for a rupee	12	4	11
Value of 25 maunds (*kham*) or 400 seers of gram (raised at home) at 7 seers for a rupee	57	2	4
Value of 2 maunds (*kham*) of *gur* (raised at home) at 5 seers for a rupee	6	6	5
Salt and miscellaneous	2	0	0
Total	364	0	9
The cost of maintaining two yoke-cattle, *viz.*, an ox and a buffalo, would be two-fifths of the above-mentioned sum	145	9	11

As regards the oxen and buffaloes, the general practice seems to be that a *zemindar* in Bairampur seldom retains the same pair for a long time. As soon as one is worn out another is purchased. Sometimes when the *zemindar* is in need of money and possesses, say, a good ox, he would sell the good one, and out of the proceeds purchase a cheaper one in its place. Such a pair, as Jawala and Babu possess, would wear out in about 6 to 8 years. Assuming that the pair will wear out completely in 7 years, the general expenses of cultivation may be estimated thus—

---

* The rate at which maize fodder was actually sold at Hariana.

	Rs.	A.	P.
1. Cost of an ox and a buffalo, Rs. 115; interest at 9 per cent. per annum—the rate at which the Co-operative Credit Society in the village lends ...	10	5	7
2. Charges on account of depreciation of the plough cattle (Rs. $\frac{115}{7}$)	16	6	10
3. Cost of feeding the pair for a year ...	145	9	11
4. Annual cost of implements (page 41) ...	9	8	9
Total ...	181	15	1

Total area cultivated during the *rabi* and the *kharif* (excluding the mango garden measuring 7 *kanals* and 11 *marlas*) —

	Kanals.	*Marlas.*
(*a*) In the village	164	12
(*b*) Out of the village	12	0
Total ...	176	12
	or 16·7 acres.	

	Rs.	A.	P.
Cost of cultivation per acre	10	14	3

Sugarcane

	Acres.
Total area sown	1·95 *
Area matured	1·29 †

Net production—

	Seers.
Gur 28½ maunds or ... ... *Plus rab* 12 *katcha* maunds.	1,140
Converting the *rab* into *gur* at the estimated rate of 35 maunds of *rab* yielding 25 maunds of *gur*	137
Total ...	1,277
Plus to *lohar* and *tarkhan* about ...	1
Plus to the *jhokidar* and the other Chamar at one seer for every maund produced ...	32·7
Total of the gross produce	1,310·7

---

* 20 kanals and 11 marlas.

† 13 kanals and 15 marlas.

Average production per acre—		Seers.
(*a*) On the total area under sugarcane	...	671·8
(*b*) On the mature area under sugarcane	...	1,016·04

Cost of cultivating sugarcane in an acre of land.

		Rs.	A.	P.	Rs.	A.	P.
1.	General cost of cultivation of an acre (*vide* page 122).				10	14	3
2.	Seed-cane at Re. 1-8-0 per *kanal*				15	12	0
3.	Manuring costs nothing.						
4.	Weeding—						
	1st weeding.—One man can do 6 *marlas* in a day. On an average 15 men were employed for four days (the owners being excluded) at Re. 0-6-0 a day ...	22	8	0			
	2nd weeding.—One man did about 10 *marlas* a day. On an average 8 men for 4 days (excluding the owners) ..	12	0	0			
	3rd weeding (with spades).—One man did about 15 *marlas* in a day. On an average 7 men for 3 days (excluding the owners) ...	7	14	0			
	Total ...	42	6	0			
	Cost of weeding per acre				21	11	8
5.	Crushing costs nothing.						
6.	Harvesting, boiling and *gur* -making. Cutting costs nothing.						
	Carrying the canes to the mill, and watching and regulating the fire, 32·7 seers of *gur* at 5 seers for a rupee, Rs. 6-8-7.						
	Cost for one acre				3	5	4
	Total carried over ...				51	11	3

	Rs.	A.	P.	Rs.	A.	P.
Brought forward ...				51	11	3
7. Sugarcane crushing and boiling apparatus—						
(1) Crushing mill (lasting 20 years) ...	80	0	0			
(2) Boiling pan (lasting 10 years) ...	40	0	0			
* Annual cost on 1·95 acres would amount to—						
(1) *Lohar* for setting up and repairing	2	0	0			
(2) Depreciation charges of—						
(*a*) the mill	4	0	0			
(*b*) the pan	4	0	0			
(3) Interest on the investment at 9 per cent. per annum	7	2	3			
Total ...	17	2	3			
Annual cost per acre				9	1	3
8. *Lohar* and *tarkhan* (1 seer Re. 0-3-3 on 1·95 acres).						
Cost per acre				0	1	8
9. Land revenue and cesses				4	7	0
Total ...				65	5	2
Value of *gur* (671·8 seers) raised on an acre at 5 seers for a rupee				134	5	9
Less the cost of cultivation on an acre ...				65	5	2
Net profits of cultivating sugarcane on an acre				69	0	7

Wheat.

Total area—

	Kanals.	*Marlas.*
(*a*) In the village—		
(*i*) Under wheat ...	29	12 or 2·8 acres
(*ii*) Under wheat and gram	31	11 or 2·9 „
(*b*) Out of the village— Under wheat ...	12	0 or 1·1 „
Total ...	73	3 or 6·8 acres

---

* Sugarcane raised on more than 1·95 acres of land is often crushed, but on the other hand the mill will not last for 20 years nor the pan for 10 years ; an allowance has therefore been made.

Matured area—

		Kanals.	*Morlas.*
(*a*) Under wheat	...	28	17 or 2·7 acres.
(*b*) Under wheat and gram	...	29	11 or 2·8 ,,
(*c*) Out of the village	...	12	0 or 1·1 ,,
Total	...	70	8 or 6·6 acres.

			Seers.
Net amount produced—			
Wheat 145 maunds *kham* or	...	...	2,320
Gram 25 maunds *kham* or	...	...	40
Total		...	2,720

Plus 140 *tangars* of *bhusa.*

			Seers
Net amount produced—			
Per acre of cultivated area	...	...	400
* *Plus* 20·6 *tangars* of *bhusa.*			
Plus lohar 1½ *bharis* per plough.			
Plus ½ *bhari* for the 2 *pheras*			
16 seers in all or ...	...	...	2·35
Plus tarkhan 1½ *bharis* for the harvest plus ½ *bhari* for *phera,* 14 seers in all or per acre ..			2·06
Plus Phakka, 4 seers to *lohar* and *tarkhan* "*Pir thala* and *Sarhana,*" 4 seers to Chamar, 8 seers in all or per acre	...	...	1·2
Plus reaper—3 reapers (excluding the owners) for 8 days at 1½ *bharis* (including the *pula*) or 10 seers of wheat and gram per day.			
Total amount paid = 10 × 3 × 8 seers or per acre			35·8
Plus winnowing at 1 seer per maund or per acre ...			10·2
Total quantity of wheat produced per acre ...			451·61
†Total amount of bhusa produced per acre ...			21

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* *Plus* some *bhusa* given to the *lohar* and others with *bharis.*

† An allowance of ·4 *tangar* per acre has been made for the *bhusa,* given to the *kamins* and others, in the shape of *bharis.*

Expenses of wheat cultivation on an acre of land in Bairampur.

		Rs.	A.	P.
1.	Cost of cultivation (page 122)... ...	10	14	3
2.	Manure costs nothing.			
3.	Cost of 33 seers of seed (25 seers for a *ghumaon*) at 7 seers for a rupee ...	4	11	5
4.	Weeding of an acre (excluding the owners) at Re. 0-6-0 per hand ; one man being able to do 15 *marlas* in a day	4	8	
5.	*Reaping*—Value of 35·8 seers of wheat—Table No. XXI—at 7 seers for a rupee ...	5	2	6
6.	*Winnowing.*—Value of 10·2 seers at 7 seers for a rupee	1	7	4
7.	Payment to *lohar, tarkhan* and *chamar :* value of 6·15 seers of wheat at 7 seers for a rupee	0	14	1
8.	Land revenue and cesses	4	7	0
	Total ...	32	0	7

	Rs.	A.	P.
Value of 451·61 seers of wheat at 7 seers for a rupee	64	8	2
Plus value of 21 *tangars* of *bhusa* at Re. 1 per *tangar*	21	0	0
Total ...	85	8	2
Less ...	32	0	7
Net profits per acre ...	53	7	7

The cost of cultivating the two most important crops in Bairampur has been calculated above. It may be noted, however, that the writer had no opportunity of making personal observations and consequently the data obtained, though they seem to be reliable enough, should be treated with some reserve.

The *zemindar* has no clear idea of the terms normal or average, as they are used by an economist. Below are given the yields, in seers, of the four important crops on the different kinds of soils, which (yields) are considered by the *zemindar* neither exceptionally good nor exceptionally bad, but *fair*.

1. *Sugarcane*—

	Niain.	*Sailab.*	*Maira.*	*Retar.*	*Average.*
Bairampur	735	672	672	...	...
Daulowal	...	1,008	672	...	...
Mukimpur	840	...	672	...	...
Kutabpur	672	...	504	...	...
Total	2,247	1,680	2,520	..	...
Average	749	840	630	..	673
Settlement Officer's assumed yields	880	700	700	...	760

2. *Wheat*—

	Niain.	*Sailab.*	*Maira.*	*Retar.*	*Average.*
Bairampur	472	336	336	168	...
Daulowal	700	210	672	168	...
Mukimpur	600	...	504	168	...
Kutabpur	420	...	336	168	...
Total	2,192	546	1,848	672	...
Average	548	273	462	168	363
Settlement Officer's assumed yields	500	400	400	260	390

3. *Maize*—

	Niain.	*Sailab.*	*Maira.*	*Retar.*	*Average.*
Bairampur	420	336	336	...	...
Daulowal	672	301	301	...	...
Mukimpur	672	...	630	...	...
Kutabpur	378	...	336	...	...
Total	2,142	637	1,603	...	...
Average	535·5	318·5	401	...	418
Settlement Officer's assumed yields	700	580	580	...	620

4. *Cotton*—

	Niain.	*Sailab.*	*Maira.*	*Retar.*	*Average.*
Bairampur ...	225	210	225	...	...
Daulowal ...	...	168	168	...	...
Mukimpur ...	336	...	210	...	...
Kutabpur ...		(Not available.)			
Total ...	561	378	603	...	...
Average ...	280·5	189	201	...	224
Settlement Officer's assumed yields ...	240	220	220	...	226

The reader's attention needs hardly to be drawn to the fact that if the four villages put together were to be considered as representing the average, the yields assumed by the Settlement Officer were certainly higher than those estimated by the *zemindar*. If, however, Kutabpur were considered to be a village much below the average and the other three villages clubbed together were considered to represent the average, the figures assumed by the Settlement Officer were about the same as estimated by the *zemindar*, when the crops were *fair*.

APPENDIX TO CHAPTER VIII.

Yield per acre in seers assumed by the Settlement Officer in 1910-11.

Sirwal Circle.

	Chahi.	*Abi.*	*Barani I.*	*Barani II.*	*Barani III*
Sugarcane	900	880	880	700	360
Cotton	300	300	240	220	140
Maize	800	700	700	580	420
Moth	100 seers for all classes of land.				
Wheat	560	500	500	400	260
Wheat and gram ...	620	...	500	440	300
Gram	620	...	560	440	300
Barley	560	500	500	400	260

The rates of *bhusa* assumed were—

Bhusa of wheat or barley ...	4 maunds per rupee.
Missa bhusa ...	3 ,, ,, ,,
Stalks of Maize or *bajra* ...	12 ,, ,, ,,

Chari was treated as a green fodder.

CHAPTER IX.

AGRICULTURAL STOCK OF THE VILLAGE.

From Table No. XXXII below it will be seen that the agricultural stock of the village has been falling continuously since 1886-87 :—

TABLE No. XXXII.

Showing the number of Cattle in Bairampur from 1884 to 1920.

Year.	Cows.	Oxen.	Male buffalo.	Female buffalo.	Young stock.	Sheep.	Goat.	Horses and ponies.	Mules.	Donkey.	Total.	Carts.
1883-84 ...	47	93	18		46	90	23	...	...	7	324	...
1886-87 ...	226		78		...	61	38	...	1	8	412	13
1890-91 ...	198		82		...	56	35	1	3	10	385	11
1894-95 ...	62	65	17	24	46	...	63	...	4	...	281	16
1898-99 ...	65	82	23	31	70	...	52	1	...	9	323	14
1903-04 ...	53	66	22	25	65	...	73	...	...	8	312	12
1909-10 ...	47	66	30	41	61	...	51	...	2	...	298	12
1914-15 ...	36	60	22	41	67	...	33	1	...	4	264	15
1920 ...	28	40	27	41	71	...	38	2	2	3	252	13

It was the highest in that year, when the total number amounted to 412. It fell to 385 in 1890-91, the fall being due to a decrease in the number of cows and oxen, sheep and goats. It fell heavily in 1894-95 by about 28 per cent. over the figure for 1890-91. Sheep completely disappeared from the village and the number of milch and plough cattle also fell. There may be other causes, but the main cause seems to have been the abnormal rise in the uncultivable acreage due to the action of the *choh* (Table No. 1). The same cause explains the total disappearance of sheep from the village. The grazing grounds of the village were destroyed and when afterwards the lands were reclaimed, they were reclaimed individually. Owing to the division of this reclaimed land, the village commons disappeared totally, and sheep could not be maintained any longer.

It is interesting to note that there seems to be a close correspondence between the cultivable area and the live-stock, in Bairampur, up to 1914-15 : both of them have been falling. On the whole, the number of oxen in the village has either been stationary or falling, and the number of male buffaloes has been on the increase (Table No. XXXIII) The sudden and abnormal fall in the number of oxen in August 1920 seems to be partly due to the practice of the *zamindar*, explained on page 121 ; he is always selling and purchasing cattle, so that the same pair is retained, but seldom, for a long time. Anyhow the increase in the number of male buffaloes represents nothing but a fall in the standard of cultivation, or, at least, of the plough cattle.

The number of cows has been falling continuously since 1898-99 * The number of female buffaloes has either been on the increase or constant.† There are and may be other causes, but the one admitted by the *zamindars* themselves needs special mention : the *zamindar* himself prefers the keeping of a female buffalo to that of a cow. A female buffalo yields more milk and *ghee* than a cow and the proportionate cost of maintenance is less. If he likes to keep a cow, he prefers to have one with a male calf, nay, he purchases or keeps with himself calves and brings them up when the mother is sold. In the case of buffaloes he prefers a female to a male calf. Sometimes he undertakes to bring up others' calves. After a year or two the calf is sold and the proceeds are shared by halves between the *zamindar* and the original owner.* Hence the observation of another phenomenon : there is a larger number of young stock than the number of cows and female-buffaloes in the village (Table No. XXXVI) How far this tendency of the *zamindar* himself, namely to prefer the female buffalo to the cow, is responsible for the gradual extinction of the cow (other things being equal) and consequently of the ox, it will be difficult to measure or say ; that this tendency is responsible, to some extent at least, for the defeat of the cow in the struggle for existence against the female buffalo is borne out by the figures themselves : it is the number of cows that falls and not that of female-buffaloes, though, if sold, a female-buffalo will fetch a higher price than a cow.

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* The average purchase value of a cow was between Rs. 19 and 48 (Table No. XXXIV, P. 182), the highest being Rs. 91 and the lowest Rs. 10.

† The average purchase value of female buffaloe was about Rs. 68, the highest being Rs. 160 and the lowest Rs. 35 (Table No. XXXV, P. 182).

The total quantity of milk (excluding about 5 seers yielded by goats) produced in the village amounted to about 179 seers or ·6 seer *per capita*. It is only seldom that the *zamindars* of Bairampur sell milk to the confectioners or milk-sellers. In August 1920, a Gujar sold goat's milk to a milk-seller at Garhdiwala. The rest of the villagers consumed themselves the milk produced. Some, only a small portion, was drunk. The rest of the milk, after being boiled, was fermented at night, and converted into sour curds (*dahi*). A portion of the *dahi* was eaten with the *chha-wela* meals and the rest was used in the preparation of buttermilk and butter. The butter-milk was drunk and the butter used for buttering the loaves. Some of the buttermilk was converted into *ghee*. A major portion of this *ghee* was, and is generally, consumed by the *zamindar* himself. Nearly all the *zamindars* whom the writer had occasion to question with regard to the consumption of *ghee* gave the same reply : *Passu dian jutian passu de sir* : we make the milch-cattle pay its own way, and the amount of *ghee* sold is, generally speaking, so much as will fetch enough of cotton seed and crushed mustard seed for the cattle itself, and no more.†

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* The bargain as explained above is known as *adhiara*.

†It is only seldom that the *zamindar* carries *ghee* for sale to the market. A number of middlemen visit the villages frequently, and collect *ghee* by purchasing the same in small quantities from the *zamindars*. So far as the observations of the writer go, the *ghee* supplied by the *zamindar* is generally pure and it is the middleman or the dealer to whom he sells who tampers with its purity.

TABLE No. XXXIII.

Showing the number of Oxen and Male Buffaloes in possession of the various communities in Bairampur in 1920.

	Oxen.					Male Buffaloes.				
	* H. R.	Not known.	Purchased.	Average price Rs.	Total.	H. R.*	Not known.	Purchased.	Average price, Rs	Total.
Jats ...	4	11	18	53	33	2	4	16	44	22
Gujars ...	...	2	4	46	6	...	...	4	23	4
Labanas ...	1	...	...	...	1	...	...	1	32	1
Total ...	5	13	22	...	40	2	4	21	...	27

* Raised at home.

TABLE No. XXXIV.

Showing the number of Cows and their Value in possession of the various communities in Bairampur in 1920.

	* H. R.	Not known.	Purchased.	Average price of column 3 in rupees.	Total.	Number of dry cows.	Number of cows yielding milk.	Average amount of milk per milching cow in seers.	Average amount of milk per cow in seers.	Total amount of milk in seers.
Jats ...	2	2	7	48	11	4	7	7·3	4·5	49·25
Gujjars ...	1	1	2	19	4	2	2	2·8	1·4	5·6
Labanas ...	...	...	1	40	1	...	1	2·4	2·4	2·4
Kumhars ...	...	1	...	...	1	...	1	2	2	2
Chamars ...	2	1	5	29	8	3	5	1·6	1	8
Jhiwars ...	...	...	1	20	1	...	1	1·2	1·2	1·2
Fakirs ...	1	...	...	...	1	1	...	...	...	...
Bharais ...	...	1	...	...	1	...	1	2·4	2·4	2·4
Total ...	6	6	16	156	28	10	18	15·2	9·2	70·8
Average ...	...	...	...	32	..	...	...	2·2	1·3	...

*Raised at home.

TABLE No. XXXV.

Showing the Number and Value of Female Buffaloes in Bairampur in August 1920.

	*H. R.	Not known.	Purchased.	Average price of column 3	Total.	Number dry cows.	Number of milching cow buffaloes.	Average amount of milk per milching cow buffalo.	Average amount of milk per cow buffalo in seers.	Total amount of milk in seers.
				Rs.						
Jats ...	5	6	21	96	32	18	14	5·6	2·5	79
Gujars .	1†	...	2	43	3	1	2	3	2	15
Carpenters ...	...	...	1	65	1	...	1	6	1	6
Barbers ..	...	...	1	75	1	1	...	...	...	...
Mochis ...	1	...	...	...	1	...	1	4	4	4
Chamars ...	2‡	...	1	62	3	2	1	4·5	4·5	4·5
Total ...	9	6	26	341	41	22	19	23·1	14	108·5

NOTE.—The child-bearing season of female buffaloes is in September.

* Raised at home.

† Gift fom a relative.

‡ One of the females yoked to the plough.

TABLE No. XXXVI.

Showing the Young Stock in Bairampur in August 1920.

——	Buffalo calf	MALES.		FEMALES.		Total.	Grand Total.
		Calf.	Total.	Calf.	Buffalo calf.		
Jats ...	14	12	26	8	11	19	45
Gujars ...	...	3	3	...	5 *	5	8
Carpenters ...	...	...	...	...	1	1	1
Labanas ..	...		...	1		1	1
Kumhars ...	...	1	1	...	...	...	1
Chamars ...	...	2	2	5	3 †	8	10
Jhiwars ...	...	...	...	1	...	1	1
Fakirs ...	...	...	...	1	...	1	1
Mochis ...	1	1	2	1	...	1	3
Total ...	15	19	34	17	20	37	71

* One a gift.

† One on *adhiara*.

There are two forces, therefore, at work, which are responsible for the high prices of *ghee*, the heavy fall *in the number of milch-cattle* and (perhaps) a rise in the standard of living of the *zamindar* himself.

The Gujar sold his milk at 2 annas and 1 pice a seer to a confectioner at Garhdiwala. The milk-seller's servant visited the place every morning to fetch the milk. Sometimes, especially during the summer, for the goat's milk is believed to possess a cooling effect, it is purchased by the people of the village itself or by their neighbours. Very often it is sold by barter : one seer of milk being exchanged for an equal quantity of wheat, maize or gram, according to the terms of the bargain.

There is no common grazing ground in the village and the people graze the cattle in their respective fields, The Gujar has no special fields of his own and depends mostly on poaching. His habits are known to the *zamindar* and it is not seldom that he receives a thorough threshing. "His head is the strongest in the village," said Varyam Singh, jocosely referring to the Gujar, "for hardly a week passes when he does not receive a shoe-beating from some one or the other of the *zamindars*."

The cattle are, one and all, of the local variety. When some disease attacks them, the *zamindar* administers his own medicines. It is seldom that he goes to the Veterinary dispensary at Hariana. Not only is it a question of distance but of money too. The *zamindars* complained that unless they tipped the doctor or his compounder, and often both, the treatment meted out to them was unsatisfactory. The efficacy of charms is considered greater than that of the *Salotri's** medicines. In July 1920 an epidemic appeared among the cattle of some villages in the neighbourhood of Bairampur. The Veterinary Surgeon visited Khiala-Bulanda, the neighbouring village. Rather than consulting him, the villagers of Bairampur preferred to get their village *keeled* —made invulnerable to cattle-disease—with the help of a quack *faqir*, by performing some charms and a *yagg*, and the whole thing was done at the common expense of the villagers.

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* *Salotr* —A Veterinary Doctor.

It is not possible to quote exact figures with regard to cattle mortality. Some two years back an appreciable number died on account of the spread of an epidemic. Ordinarily, under normal conditions, the mortality does not seem to exceed 4 or 5 per cent. A goat never dies—especially if it belongs to a goat-herd. The Gujjar, the only goat-herd in the village, as soon as he finds that a goat will die of some disease or on account of some other cause, slaughters it and then sells the flesh to a butcher if possible, otherwise to the *zamindars*.

CHAPTER X

A.—POPULATION AND OCCUPATIONS.

B.—SANITATION AND *ABADI.*

C.—EDUCATION.

D.—BIRTHS AND DEATHS.

A.—Population and Occupations.

The total population of Bairampur, including the absentees, in August 1920 was 291 and the number of families was 60. On an average there were more than 4·8 members per family. For a detailed information with regard to the various castes composing the population, their numbers and the number of their families, the reader is referred to Tables Nos. XXXVII and XXXVIII below :—

TABLE No. XXXVII.

Showing the total number of Males and Females among the various communities in Bairampur.

Caste.	Children.	Boys.	Men.	Old men.	Total.	Female children.	Girls.	Women.	Old women.	Total.	Grand Total.	REMARKS.
Labanas ...	...	1	2	...	3	2	2	1	...	5	8	
Jats ...	7 One blind	15	44	8	74	10	12	22	3	47	121	Male up to 7. } Children. Female „ 6. } Children. Boys 8—18 years. Men 19—55 years. Old men above 55 years. Girls 7—15 years. Women 16—50 years. Old women above 50 years.
Gujars ...	5	1	11	...	17	6	9	5	2	22	39	
Jhiwers ...	*Nil*	3	2	...	5	1	1	2	...	4	9	
Chamars ...	8	7	14	2	31	4	7	13	4	28	59	
Fakirs ...	...	1	1	...	2	1	...	1	...	2	4	
Mochis ...	1	2	2	...	5	...	...	1	...	1	6	
Brahmans ..	...	...	1	...	1	...	...	1	...	1	2	
Bhorai ...	...	...	1	...	1	1	...	1	...	2	3	
Barber ...	1	1	...	...	2	...	...	1	1	2	4	
Carpenter ...	7	4	3	...	14	1	2	4	1	8	22	
Kahar ...	...	1	3	...	4	...	1	1	1	3	7	
Marasi ...	...	1	1	1	3	...	...	1	...	1	4	
Weaver ..	1	...	1	...	2	...	.	1	...	1	3	
Total ...	30	37	86	11	164	26	34	55	12	127	291	

TABLE No. XXXVIII.

Showing the Population of Bairampur, the number of Families, the percentage of Families and Earners.

Castes.	Number of families.	Percentage on the total number of families in the village.	Total population.	Average number of members per family.	Number of males.	Percentage of column 6 on column 4.	Average number of males per family.	Number of females.	Percentage of column 9 on column 4.	Average number of females per family.	Percentage of column 4 on total population (291).	Number of earners.	Percentage of column 13 on column 4.	Percentage of column 13 on column 6.
Jats	25	41·6	121	4·8	74	61·1	2·8	47	38·9	1·9	41·1	44	36·3	59·4
Chumars	11	18·3	59	5·4	31	52·5	2·8	28	47·6	2·6	20·3	14	23·7	46
Gujars	8	13·3	39	4·9	17	43	2·1	22	57	2·8	13·4	11	28·2	64·7
Mochis	2	3·3	6	3	5	83	2·5	1	17	·5	2·6	2	33·3	40
Weavers	1	1·6	3	3	2	66·6	2	1	33·3	2	1·2	1	33·3	50
Bharais	1	1·6	3	3	1	33·3	1	2	66·6	2	1·2	1	33·3	100
Barbers	1	1·6	4	4	2	50	2	2	50	2	1·4	1	25	50
Carpenters ...	2	3·3	22	7·3	14	64	7	8	36	4	7·5	3	13·6	21·4
Kumhars	2	3·3	7	3·5	4	57	2	3	43	5	2·4	3	42·9	75
Labanas	1	1·6	8	8	3	37·5	3	5	65·5	1·5	2·8	2	25	66·6
Jhiwars	2	3·3	9	4·5	5	55·5	2·5	4	44·5	2	3·1	2	22·2	40
Fakirs	1	1·6	4	4	2	50	2	2	50	2	1·4	1	25	50
Brahmans	1	1·6	2	2	1	50	1	1	50	1	·7	1	50	100
Mirasis	2	3·3	4	2	3	75	1·5	1	25	·5	1·4	1	25	33·3
Total	60	...	291	4·85	164	...	2·7	127	...	2·1	...	87	29·6	52·4

Of the 121 Jats, 74 or 61·1 per cent. were males and 47 or 38·9 per cent. were females. The adult earning males comprised only 36·3 per cent. Of the 44 men 4 were employed in the army—one being a *Jamadar*, another a motor-driver, and the other two soldiers—and one a *Patwari.* Two of the Jats in the village do not cultivate their lands themselves and the remaining 37 are actual cultivators. It may be noticed that all those who are employed in the army or elsewhere are sons of owners and not owners themselves. The other male Jats may be classified thus :—

	Number.	*Percentage on the total (74).*
Children	7	9·4
Boys	15	20·3
Old men (all owners) ...	8	10·8

The females among the Jats number 47. According to the age and utility as working members of the community they may be classified as follows :—

	Number.	*Percentage on total (47).*
Women	22	46·8
Girls	12	25·5
Old women	3	6·4
Children	10	21·3

The percentage of females in comparison with the total number of the people in community is 38·9. The total number of married males is 22 and of widowers 6 (Table No. XXXIX, page 140). Only one boy is betrothed. The number of married females is 26, but of them 7 are "daughters" married to people living elsewhere and only casual visitors to their parents. Table No. XL, page 141). Three of the daughters of the Jats are betrothed. There are 5 widows of whom 1 is a girl, one a woman, and 3 old women. It will be seen therefore that for 44 men there are only 19 women. The figures with regard to marriage, etc., of the males may be analysed thus:—

	Total number.	Percentage of			Percentage of unengaged in every way.
		Betrothed.	Married.	Widowers.	
*Male children	7	...	...	...	100
Boys	15	7	...	..	93
Men	44	...	43·2	6·8	50
Old folk	8	...	37·5	37·5	25
Taking the males as a whole ...	..	1·3	29·9	8·1	60·7

It is clear, therefore, that a large number of males remain unmarried. And this explains one of the main causes of a continuous fall in the poulation of Bairampur since 1891. A wife is the right hand of the cultivator, and hence his desire to have one even at the payment of a high price. A Jat will sometimes marry almost any woman he can.

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*For distinction between male children, boys, etc., please see the remarks column in Table No. XXXVII.

TABLE No. XXXIX.

Showing the number of Betrothed and Married Males and Widowers in Bairampur.

Tribe or caste.	Betrothed.		Married.							Widowers.					
	Boys.	Average age of betrothal.	Boys.	Average age of marriage.	Men.	Average age of marriage.	Old folk.	Average age of marriage.	Total married.	Men	Average age.	Old folk.	Average age.	Total widowers.	Average age.
Jats	1	12	...	...	19	28	3	16	22	3	31	3	50	6	40
Brahmans	...	...	...	...	1	27	...	...	1	...	...	...	...	...	...
Bharais	...	...	...	...	1	20	...	...	1	...	...	...	...	...	...
Barbers	...	...	...		1	12	..	...	1	...	...	...	...	...	...
Gujars	...	...	...	...	8	16	...	...	8	...	...	1	45	1	45
Weavers	1	14	...	...	1	17	...	...	1	...	...	...	...	...	...
Carpenters	...	...	1	13	3	22	...	...	4	...	...	...	...	...	...
Potters	..	...	...		2	18	...	..	2	...	...	...	...	...	...
Labanas	...	...	...	...	1	24	...	..	1	...	...	...	...	...	
Chamars	2	11	4	12	10	17	1	...	15	4	31	1	52	5	41
Jhiwars	...	...	...	...	1	17	...	...	1	1	38	...	...	1	38
Mirasis	...	...	...	...	1	16	...	...	1	1	45	...	...	1	45
Mochis	...	...	...	...	1	18	...	...	1	1	40	...	..	1	40
Total ...	4	12	5	12	50	19	4	16	59	10	37	5	49	15	41·5

NOTE.—For an explanation of the term boys, men and old men please see the 'Remarks' column in Table No. XXXVII.

TABLE No. XL.

Showing the number of Betrothed, Married and Widowed Females in Bairampur.

Caste.	Married.					Widows.							Daughters.						
	Girls.	Average age.	Women.	Average age.	Total.	Girls.	Average age.	Women.	Average age.	Old women.	Average age.	Total.	Betrothed daughters.	Average age.	Married daughters.	Average age.	Widows.	Average age.	Total.
Jats ...	...	...	19	12	19	1	16	1	40	3	48	5	3	6	7	13	...	...	10
Brahmans ...		...	1	16	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Bharais ...	...	...	1	15	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Barbers ...	...	...	1	10	1	...	...	1	38	...	...	1	...	...	...	...	...	...	...
Gujjars ...	3	9	4	12	7	...	...	1	50	1	43	2	1	6	4	12	...	...	5
Weavers ...	...	...	1	17	1	...	...	...	...	...	...	...	...	...	...	...	...		...
Carpenters ...	...	...	3	13	3	...	...	1	27	1	30	2	...	...	1	12	...	...	1
Potters ...	...	...	2	18	2	...	...	...	...	...	...	...	1	12	...	...	...	...	1
Labanas ...	...	...	1	15	1	...	...	...	...	...	...	...	...		...	...	...	...	
Chamars ...	...	...	11	11	11	...	...	2	26	2	46	4	1	5	3	9	1	44	5
Jhiwars ...	...	...	...	...	...	...	...	...	...	1	...	1	...	...	1	16	...	...	1
Mirasis ...	...	...	...	...	...	...	...	1	40	...	...	1	...	...	...	...	...	...	...
Mochis ...	...	...	1	15	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	3	9	45	...	48	1	...	7	...	8	...	16	6	...	16	...	1	...	23

NOTE.—For an explanation of the terms girls, women, and old women, please see the 'Remarks' column in Table No. XXXVII.

Social taboo on account of the neglect of observance of caste-regulations is practically unknown. There are some people who are regular dealers in women ; they purchase and sell women. Woman is the cause of many a quarrel and law suit among the Jats and once jealousy or enmity is aroused among the families, it continues for a long time and sometimes from generation to generation. The cases of elopement too are not a few.

But scarcity of women alone does not seem to be the sole cause of the fall in population. There is another economic factor working at the root. Sometimes, and that not rarely, the Jat himself consciously observes celibacy. The writer was rather doubtful with regard to the veracity of his observation, but it was explained and brought home to him by a Jat himself : Tulsa Singh of Mukimpur, who quoted some instances too. " If we find that there is not enough of land for all " said he, " one of the several brothers marries and the others pass their lives as bachelors. " The results are clear enough. Such a family can maintain a higher standard of living than others. The number of children will not be large and there will be more of production than otherwise, for in the field-economy these unmarried brothers will take the place of *kamins*. The matter is borne out by facts too. In Mukimpur, there are a few families only that employ and keep a permanent *kamin* and the Chamars of the place said that generally they had to find work for themselves, outside the village. No wonder then, that the yields in Mukimpur are comparatively much higher than in the neighbouring villages. From a social point of view, the state of affairs cannot be called healthy, for it results in loose morals, sometimes. The existence of a large number of unmarried people is also responsible for the ability of many of the Jats to keep perhaps a comparatively higher standard of living, or at least to make the two ends meet. The population of Kutabpur has not fallen seriously, since 1901 ; it has actually increased—

Year.	BAIRAMPUR.		KUTABPUR.	
	Population.	Percentage of decrease on that of 1891.	Population.	Percentage of decrease on that of 1891.
1891	419	...	183	...
1901	370	11·6	146	19·1
1911	331	21	139	24
1920	291	30·5	159	14·2

Another fact is worth noticing too. The total number of males (Rajputs) in Kutabpur was 34 and that of females 33, showing clearly that a larger number of Rajputs can and do get themselves married than Jats. This, among other causes, accounts for their poverty (perhaps).

Of the 39 Gujars, 17 are males and 22 females. The number of females is slightly in excess of the males, but a large number of them are " daughters. " Three of the " men-Gujars " are married to " girl-wives " so that there is a great difference of ages. The Gujars are occupancy tenants. One of them is a soldier in the army, and another a teacher in a primary school. All the others are cultivators, except one who is a goat-herd.

The only family of Labanas has 8 members : 3 males and 5 females They were occupancy tenants, but through a recent purchase of 1 *kanal* and 2 *marlas* of land, they have become owners too.

The Chamars comprise the labour force of the village. In addition to their working as permanent *kamins* they work as casual labourers too and when not engaged anywhere they make ropes of *san*-hemp, *munj* and *baggar* grasses. Many of them visit the *Bet*—country roundabout the river Beas—during the harvest season. One of the Chamars is a follower in the army. The Chamars number 59 : 31 males and 28 females.

The family of the six Mochis—5 males and 1 female—follows the profession of shoe-making and weaving. During the harvest time they take part in agricultural operations.

The Jhiwars number 9—5 males and 4 females. One of the Jhiwars is employed in the army and his father is the *chaukidar* of Bairampur and Khiala-Bulanda. They serve as *kamins* too.

There is only one family of barbers with 4 members. The life of the barber is a busy one : the males shave the Jats and run or go on errands, the females help the women-folk in hair-dressing and on ceremonial occasions.

The family of weavers claim to be Sidhu Jats. They are treated as *kamins*, and work on hand-looms.

The carpenters number 22. They serve as *kamins* of the people of Bairampur and of other villages. One of the carpenters possesses a *kharas* (flour-mill). Anyone who desires to mill anything has to supply his own cattle-power. The carpenter charges one seer for every maund of wheat milled.

The potters 7 in number—4 males and 3 females—do not ply their trade regularly, and most of the pottery required in the village is supplied by the potter from Bassi Ballu. The potter himself is a dealer in cattle.

The Brahman and his wife are the only people who do not take any part, directly, in the agricultural operations. A cook, by trade, he works as a retail dealer too.

The Fakirs and Bharais, 7 in number, constitute the permanent beggar-force of the village. Of course they do not depend on the village charity alone. The Bharai is almost always out on drum-beating, singing and begging expeditions and the *fakir* works a piece of *muafi* land. The seven *mirasis* too come under the same category, but they are included among the regular *kamins* and one of them is a tailor, who charges wages both in cash and kind.

B.—Village Abadi *and Sanitation.*

The village *abadi*—the residential places of the villagers—takes invariably and practically speaking the same form everywhere. The fronts of nearly all the houses are built facing inward, and the backs of the outermost houses, form, as it were, the outer wall of the village This general plan of village building seems to be a relic of the olden times, when sometimes the village used to be attacked or invaded by robbers. In such cases the walls of the outermost houses used to serve as temporary ramparts. It is perhaps on account of this fact and also the extreme fragmentation of land that all the villagers live together, though, if the farms were solid blocks, it would be to the interests of the *zamindar* or the cultivator to build him a house on one side of his farm. The landlords, in nearly all cases, occupy the central area of the *abadi*, and the *kamins* either lives towards the outermost part of it or occupy an area quite separate from the one occupied by the cultivators. Again each one of the villages, either within or just near the *abadi*, has a small compound, with a large tree, *pipal* or banyan, or a small grove in it, where the villagers meet together. At about noon one may expect to meet almost everyone there : dozing, talking, discussing, mending some tool or making or mending a rope and so spending his leisure hours. Near this compound is a well for water which is used by the landlords or those (castes) whom they allow to use it. Each one of the communities (touchables and others) has its own well and jealously guards its right to use the well. Whenever a regular road or path runs from or to the village, the village *abadi* lies either on the brink of it, as it were, or is found situated on both the sides.

Pakka houses are few in number, though the houses of some of the prosperous people have fronts made of burnt bricks. The plan followed by all the communities is nearly the same, although the space occupied differs according to the circumstances. In the case of nearly all the *zemindars* and a fairly large number of well-to-do *kamins*, the places of residence are two; the *ghar*—the house proper where the ladies, children, and those who are closely related live, and the *haveli*, a second building where cattle are kept and casual guests or visitors put up. In all the four villages all the houses were one story high. The roof of the house is often flat: it is generally so in the case of the Jats and the other cultivators. Sometimes there are sloping thatched roofs, especially in the case of Chamars and other *kamins*. The houses are mostly *kacha*, " made of mud " and the roofs when flat are occasionally used for sleeping during the summer. They are also used for drying cobs and other crops, when necessary.

In each one of the houses there is a *kothi* or place for storing grains and some *mattis*—large earthen jars for putting in *gur* and other things. A spinning wheel—*charkha*—and a *chakki*—hand-mill—and often a *belna*—a small machine for separating cotton seed from impure cotton—can be seen in all the houses. The places for cooking are often two, if there is space enough—one inside the house and the other outside of it, just near the door. Some windows, small in size, there are to be found, especially in the case of the houses built on the latest design. As compared with the area occupied by a house, the windows and doors are relatively small in size and number. Ventilators are conspicuous by their absence. Their presence is considered dangerous, and if there happen to be any they are closed. A Jat is afraid of thieves and even more than that of those with whom he is not on good terms. If his enemies find a ventilator in his house, they can set fire by throwing something burning and inflammable into it. It is easier to break a house with a ventilator than without it. It is in this way, at least, that the Jats of Bairampur argue and justify the total absence of ventilators. Milk is, so far as possible, invariably boiled with the fire made of cow-dung cakes, because it is believed that when boiled slowly with this kind of fuel, it yields excellent thick *malai* (cream) and *ghee*. In order to allow the smoke to escape and protect the milk from the attacks of cats, dogs and what-not, a special receptacle is made in the wall. The boiling kettle is placed in it over burning cow-dung cakes and a door made of pieces of wood joined together, with spaces between each, is attached to the receptacle. Sometimes special arrangements or holes are made for the smoke to go out and in such cases the room does not become smoky when fuel is burnt. Sometimes a special jar-shaped sort of vessel made of earth is prepared for boiling milk and it may be placed anywhere, though generally out of the room just close to the door.

The general appearance of the inside of the houses is very neat and clean, and it is interesting to note that in this respect the houses of the Chamars look the best.

The streets are narrow and though the houses are clean the compounds of the *havelis* are often not so. The streets are invariably dirty: every one looking after his own house and none to the common, narrow, irregular outlets and inlets known as streets. Arrangements are often made in the compound of the house, so as to see that water flows out properly, but it is not so in the streets. Water—of rain generally speaking— must make its own arrangements, and find a way out as best it can. The way leading to and out of Bairampur turns into one stream of water, whenever it rains. The street is not wide enough to give ingress to a *gadda* or cart.

In and close to the Bairampur *abadi* there are three "*chhappars*" or ponds. During the rainy season water collects in them and is used by the villagers for watering their cattle. That the ponds are also hot beds of mosquito and of fever and other diseases is never realised and it is possible that the village suffers in health on account of this proximity to stagnant water.

C.—Education.

The nearest primary school is at Khiala-Bulanda, the neighbouring village. Those who desire to study further must betake themselves to Bhunga, in the Kapurthala State, where there is an Anglo-Vernacular Middle School, or to Garhdiwala.

The total number of males and females who can read and write anything or are studying at present is 34, or 11·6 per cent. of the total population. Of these 33 are males and 1 female. Literacy among the various castes may be shown thus :—

Jats.	Landas.	Gurmukhi.	I.	II.	III.	IV.	V.	VI.	VII.	VIII.	Total.
Old men. ...	2	2	...	...	...	...	...	...	...	...	4
Men (up to) ...	...	6	...	...	...	...	1	1	1	1	10
Boys (studying in or up to) ...	...	2	...	1	2	2	2	...	...	...	9
Children (studying in) ...	...	...	2	3	.	...	...	...	...	..	5
Gujars.											
Men (up to) ...	...	...	...	...	...	1	...	...	...	...	1
Boys (studying in) ...	...	...	..	...	...	1	...	...	...	...	1
Labanas.											
Boys (studying in) ...	...	...	...	...	...	1	...	...	...	...	1
Carpenters.											
Boys (studying in) ...	...	...	...	...	1	...	...	...	...	...	1
Men ...	...	1	...	...	...	...	...	...	...	...	
Total ...	2	11	2	4	3	5	3	1	1	1	33

The numerals refer to the standard of class.

TABLE No. XLI.

Showing the number of Literates among the various communities in Bairampur in August 1920.

Caste.	Children.	Boys	Men.	Old folk.	Total.	Female children.	Girls.	Women.	Old women.	Total.
Jats ...	5	9	10	4	28	...	...	...	...	...
Chamars ...	...	...	...	...	...	...	...	1	...	1
Gujars ...	...	1	1	...	2	...	...	...	...	...
Labanas ...	...	1	..	...	1	...	...	...	...	...
Carpenters ..	.	2	...	...	2	...	...	...	...	...
Total ...	5	13	11	4	33	...	...	1	...	1
Average	1	2·6	2·2	·8	6·6	...	...	.2	...	·2
GRAND TOTAL ...	...				34					

The highest standard which anyone has attained up till now is the 8th class. Among the males, more than 33 per cent. can read and write Landas and Gurmukhi alone. The percentage of literates among the Jats alone is 37·8 : 28 out of 74 It will be noticed, however, that all the Chamars are uneducated. The fact is due to the apathy of the Chamars toward education and also the jealousy on the part of the higher castes : the Chamars belong to the depressed classes and the higher castes do not agree to sit with them at the same place for receiving education. There is some tendency towards actually discouraging the Chamars from receiving education. "If the Chamars became educated," said one of the Jats, "who will do our manual work?"

It is to the credit of the Chamars that the only woman in the village who can be called literate, belongs to their community. There does not seem to be the least desire for female education among the villagers. Questioned as to why they did not educate their women-folk, " they do not leave us to ourselves, but keep us under petticoat-government, even when uneducated, " said one of the Jats, "what will they not do, if they became educated : turn us out of our homes and hearths perhaps." This clearly shows how strongly prejudiced these people are against female education, and it can never be removed unless they themselves are led out of darkness by the torch of a free and liberal education.

D.—Births and Deaths.

The data at the writer's disposal are so few and scanty that no generalisation can be made or drawn with regard to the average number of births and deaths at Bairampur. The village registers of births and deaths were available and supplied information for the last two years only, *viz.*, for 1918 and 1919.* The results have been tabulated in Tables Nos. XLII and XLIII.

The highest number of births was among the Jats : 7·5 on an average for the last two years. The greatest mortality among the Jats was among children : 8 or 61 5 per cent. No Jat female, except children, died. The greatest percentage of toll paid to death was by the Chamars : there were only 2 births and 7 deaths.

The cause of death, or the name of disease, is recorded by the *lambardar* or any one else who can read and write. Ignorant of medical science, the recorder puts down the name of any epidemic prevailing in the neighbourhood at the time, or simply "fever." On the whole, it may be safely asserted that every one dies of " fever " there.

Only a few people consult the doctor at Garhdiwala, the nearest station with a charitable dispensary. The great distance of the dispensary from the village, the avarice of the doctor and his compounder and the lack of faith in the efficacy of western medicine, constitute the chief causes of the people for not attending for receiving aid from the District Board dispensary.

There is a ***hakim***, a doctor of ***Unani*** medicine, at Khiala-Bulanda. Failing him, the villager often consults a *Pansari* (grocer) at Bhunga or Hariana. For dressing ordinary sores and wounds, the village barber too keeps and prepares some ointments

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*The average number of births and deaths for these two years is the same : 14. The data, however, is so scanty, that it will be unsafe to attempt to draw any conclusions on its basis.

TABLE No. XLII.

Showing the number of Births in Bairampur during 1918 and 1919.

Caste.	1918		1919		Total.	Annual average.
	Males.	Females.	Males.	Females.		
Jats	4	4	3	4	15	7·5
Gujars	2	2	1	1	6	3
Chamars	2	...	...	...	2	1
Mochis	...	1	...	...	1	·5
Carpenters	1	...	...	...	1	·5
Weavers	1	1	...	...	2	1
Labanas	...	...	...	1	1	·15
Total ...	10	8	4	6	28	14

TABLE No. XLIII.

Showing the number of Deaths in Bairampur during 1918 and 1919.

Caste.	1918						1919						Total.	Annual average.
	Males.	Average age in years.	Females.	Average age in years.	Children.	Average age in months.	Males.	Average age in years	Females.	Average age in years.	Children.	Average age in months.		
Jats ...	2	30·5	..	...	2	·5	3	42·3	...	...	6	9	13	6·5
Gujars ...	1	2	1	30	1	·03	...	...	...	...	...	...	3	1·2
Chamars	1	60	3	29	3	36	...	..	2	37·5	...	...	9	4·5
Jhiwars ...	...	...	...	...	1	10	...	...	...	...	...	...	1	·5
Bharais ...	1	30	...	...	...	...	...	...	...	...	...	...	1	·5
Mochis ...	...	...	...	...	...	...	...	...	...	...	1	·4	1	·5
Total	5	...	4	...	7	...	3	...	2	..	7	...	28	14

APPENDIX I TO CHAPTER X.

Indian months.

Pos	... 15th December	to 12th January.
Magh	... 13th January	to 10th February.
Phalgan	... 11th February	to 12th March.
Chetar	... 13th March	to 11th April.
Baisakh	... 12th April	to 13th May.
Jeth	... 14th May	to 13th June.
Har	... 14th June	to 15th July.
Sawan	... 16th July	to 15th August.
Bhadon	... 16th August	to 15th September.
Asoj	... 16th September	to 15th October.
Kattak	... 16th October	to 14th November.
Maghar	... 15th November	to 14th December.

APPENDIX II TO CHAPTER X.

Annual time-table of work of two brothers, possessing and cultivating 13·54 acres of cultivable land, in Bairampur.

15th Jeth to 30th Jeth.

1. Carting of manure and throwing it in heaps in the fields—
   5 days; 7½ hours a day .. = 37½ hours.
2. Carting of earth for repairing houses—
   2 days; 4 hours a day ... = 8 hours.

   Weeding of cotton (19½ *kanals*)—
   6 days; 8 hours a day ... = 48 hours.

Har 1st to 15th.

1. Ploughing of land for *rabi*.
2. „ „ „ „ *kharif.*
3. Collection of grass for cattle—
   15 days; 4 hours a day ... = 60 hours.

16th to 30th Har (after the fall of rain).

1. Sowing of *kharif* crops—
 7 days ; 10 hours a day ... = 70 hours.

2. Collection of grass—

 15 days ; 2 hours a day on an average, for the whole period ... = 30 hours.

Sawan.

1. Weeding—

 (*a*) Sugarcane—

 6 days ; 10 hours a day ... = 60 hours.

 (*b*) Maize—

 5 days ; 10 hours a day ... = 50 hours.

2. Sowing of *munji*—

 (*a*) Preparing* the soil—

 One day ... = 12 hours.

 (*b*) Sowing proper—
 One day ... = 10 hours.

3. Occasional ploughing (whenever it is possible and the season permits)—

 12 days ; 4 hours a day ... = 48 hours.

4. Weeding cotton—

 6 days ; 8 hours a day ... = 48 hours.

5. Collection of grass—

 31 days ; 1 hour a day ... = 31 hours.

Bhadon.

1. Ploughing for *rabi*—

 15 days ; 3 hours daily ... = 45 hours.

2. Weeding of maize and *mash*—

 5 days ; 11 hours a day ... = 55 hours.

3. Ploughing the maize—

 7 hours ... = 7 hours.

4. Collection of grass—

 30 days ; 3 hours a day ... = 90 hours.

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*" *Kaddo-karna.*"

Asoj.

1. Ploughing for *rabi*—
   20 days ; 6 hours a day ... = 120 hours.
2. Collection of fodder—
   25 days ; 3 hours a day ... = 75 hours.
3. Cutting of maize—
   2 days ; 12 hours a day .. = 24 hours.
4. Threshing and winnowing of maize—
   2 days ; 8 hours a day ... = 16 hours.

Kattak.

1. Sowing wheat—
   8 days ; 12 hours a day ... = 96 hours.
2. Fencing the fields and going out in search of thorny plants (including the time spent in poaching plants)—
   4 days ; 4 hours a day ... = 16 hours.
3. Cutting of *San*-Hemp—
   2 days ; 8 hours a day ... = 16 hours.
4. Collecting grass, whenever possible—
   15 days ; 2 hours a day ... = 30 hours.

Maghar.

1. Cutting and pressing of sugarcane.
2. Boiling and *gur*-making.
3. Irrigating, if possible, the fields in which *senji* has been sown.
4. Placing the *san*-hemp plants under water.
5. Repairing the houses.
6. Occasional ploughing.

30 days ; 10 hours a day ... =300 hours.

Pos and Magh.

1. Cutting and pressing, etc., of sugarcane—
   5 days ; 12 hours a day ... =60 hours.
2. Manuring the fields.
3. Ploughing the fields for sugarcane.
4. Helping others in sugarcane pressing, etc.

55 days ; 9 hours a day ... =495 hours.

Phalgan.

1. Ploughing.
2. Collecting grass.
3. Sowing sugarcane.
4. Bringing grass.

30 days; 8 hours a day ... =240 hours.

Chetar.

1. Sowing—
   (*a*) Sugarcane.
   (*b*) Cotton.

8 days ; 8 hours a day ... =64 hours.

2. Cutting *senji* ; collecting grass—

20 days ; 3 hours a day ... =60 hours.

3. Cutting and threshing of barley—

4 days ; 10 hours a day ... =40 hours.

4. Weeding—
   (*a*) Sugarcane.
   (*b*) Cotton.

6 days ; 8 hours a day ... =48 hours.

Baisakh.

1. Weeding sugarcane—

4 days ; 12 hours a day ... =48 hours.

2. Cutting, etc., of wheat—

7 days ; 15 hours a day ... =105 hours.

3. Threshing of wheat—

3 days ; 13 hours a day ... =39 hours.

Jeth (up to 14th).

1. Threshing of wheat continued.
2. Winnowing.
3. Carriage of wheat to the house.
4. Storing the *bhusa*—

14 days ; 13 hours a day ... =182 hours.

Total number of hours	2,785·5
Number of days, taking a normal day of 10 hours	278·55
Number of days taking a normal day of 8 hours	347·3

Those who have small holdings, are never so busy.

CHAPTER XI.—A STUDY OF THE JAT-SOCIETY FROM AN ECONOMIC POINT OF VIEW.

A description of the work done in the field has already been given in Appendix II to Chapter X. At about four or five in the morning, the husbandman gets up and drives the plough cattle to the field. If the morning has to be devoted to weeding or something else of the kind, he proceeds alone, and the other workers assemble there. At about 8 A.M. some one member of the family arrives with his *chhawela*[*] meals. The cattle are not unyoked and, if very busy, he finishes the meals hurriedly. Resuming the work, he works up to noon. During the busiest season his meals are served in the field. Ordinarily, he drives the cattle home. While he himself takes rest and bathes, his wife or some other member of the family looks after the cattle. After taking his meals,[†] he rests or goes to the common meeting place of the village. Some parched grains or maize cobs may be eaten in the afternoon. Between 3 and 4 P.M. he goes again to the field. If there are a sufficient number of hands in the family, one of them returns earlier than the others and chops up the *bhari* of green fodder which he brings with him. On return from the field, he dines[‡] and retires for the night between 9 and 10 P.M.

The male children, if they are attending any school, are not much disturbed in their studies, except during the harvest season, when help is taken of every hand in the family. That is why in most of the village schools there is no regular vacation lasting for a month or so, but the schools are closed twice a year, at the harvest time for a fortnight or so.[§] If the children are tender in age, they have nothing to do. If strong enough, and not attending any school, they have to take the cattle out to the grazing grounds and help in the field work if possible. Help is taken from girls at an age earlier than from the boys. They help in the household work, carry the *chhawela* meals to the fields, dust the house, drive cattle to the field, if necessary, and work on the spinning wheel. When old enough they do sewing too.

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[*] The *chhawela* meal generally consists of two light loaves (buttered if possible) for every working hand of the family in the field, sour-curds or pickles, and a drink of butter-milk.

[†] The *rotiwela* meals often consist of a sufficient number of loaves, *dal* or vegetables; occasionally sour-curds and butter-milk and butter. If a visitor has to be entertained, an additional dish of sugar, or, sugar and butter mixed together, is served.

[‡] The *khaopiya* meals consist of loaves and *dal* or vegtables; no sour-curds or butter-milk are served at this time.

[§] These holidays are known as "*fasil-chhutian.*"

A woman is the right hand of the cultivator, except in the case of the castes (Rajputs and others) which observe *pardah*. Early in the morning she gets up and mills grain for consumption during the day. At about 6 A.M. she works the sour-curds into butter-milk and butter.* *Gutava*, or special food consisting of *bhusa*, cotton-seed, crushed mustard-seed and flour, is prepared and given to the milch cattle, which are then milked. The milk is placed in an earthen vessel for boiling and loaves are prepared for the *chhawela*. If there is no one else at hand, the *chhawela* meals are carried to the field. If necessary, the milch-cattle too are driven to the field, at the same time. On return from the field, she may work on the spinning-wheel for a time or sew or mend clothes or take bath and wash clothes. At about 10 or 10-30 A.M. she burns fire and cooks *dal*. If the *zemindar* is too busy to dine at home, food is carried for him to the field. During the cotton-picking season, the *chhawela* and the *rotiwela* food is cooked in the morning and the rest of the day spent in picking cotton. On the cultivator's return home at noon, if there is no one else to do the things, she helps in watering and looking after the cattle. The rest of the day, up till 4 or 5 P.M., is devoted to spinning on the *charkha*. After that the evening meals are prepared and the milch cattle milked. The milk is boiled and mixed with that of the morning, and then placed in an earthen vessel. Some sour-curds are put into it, for fermenting. Is the work that she does in mending or sewing clothes, or in spinning over the wheel economic ? Uneducated and untrained as she is, she could hardly do anything more productive. The marginal utility of what she earns, or better, saves, is not negligible for a person of her means and circumstances. Her work, therefore, in the circumstances in which she lives and works is certainly economic.

On the days when fairs are held, the villager, if he has time, goes there. There are no habitual drinkers, nor is there any Jat teetotaller in the village. On occasions of marriages, social entertainment, and fairs, wine is often drunk. Nearly every one smokes, excepting the Sikhs. There was one Sikh whom the writer saw smoking. The

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* The curds are placed in an earthen vessel and with the help of an instrument made of a long wooden rod, to the one end of which is attached a semi-circular groved piec of wood, the whole is stirred for half an hour or so. The instrument (*mdhani*) is kept in a vertical position with the help of a wooden structure, and it (*madhai*) is made to move with the help of a string.

zemindar's purse is effected a lot by marriages, betrothals and deaths of old people, not only, when there is such an occasion in the family itself but also when it is so among the members of the *baradari* (brotherhood) and relatives. Whenever the betrothal of some one among the *baradari* takes place. *varna* has to be performed : a few pice have to be given as sacrificial money to the *kamins*, especially to the barber or his wife. On the occasions of marriages, *varna*, as well as *neuta* or *neunda*, generally amounting to a rupee, has to be given. The amount of money paid on account of *neunda* depends on the proximity of blood-relationship and the extent of mutual friendship prevailing between the *neunda*-giving and *neunda*-taking families. *Neunda* is in fact nothing but a kind of a social loan without interest, made at one time and returned at another. So far as it is a sort of a help to the person to whom the *neunda* is given, it is an excellent institution: several people contribute small sums for helping a member of the *baradari*, and the taking and giving is done without reproach. But it involves the distribution of *bhaji* or of sweets and other things, so that very often a man has to spend much more for *bhaji* distribution than he has received in the form of *neunda*. The *bhaji* distribution is mainly conducted for show, or it might be interpreted as a sort of announcement with regard to the performance of a certain ceremony among the members of the *baradari*. Anyhow, from an economic point of view, it is mere waste of money, and had better be discontinued.

The financial aspect of the common incidents of life, birth, betrothal, marriage, and death, in the case of the Jats may be put down thus :—

(*a*) *Birth of the eldest son*—

	Rs.	A.	P.
(*i*) Giving to each one of the members of the *baradari*— 7 *phulkas*—light loaves, some boiled rice and sugar and *dal*	20	0	0
(*ii*) Distributing about 8 seers of wheat among the *kamins*	1	0	0
(*iii*) Sending of 5 seers (*kham*) of *gur* to each one of the *dhianis* (daughters and sisters and other ladies closely related to the babe's father) ...	*5	0	0
Total ..	26	0	0

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*The amount depends on the number of relatives.

(*b*) *Birth* of the other sons and daughters does not cost much

Betrothal.—The services of a *Bachola*—a go-between—are often a necessity, especially among the average poor Jats.

A.—Of a daughter –

	Rs.	A.	P.
(1) The *Bachola* and the family barber are sent to the bridegroom's house and provided with			
(*i*) money ...	1	2	0
(*ii*) five dry dates ...	0	0	3
(2) After the performance of the ceremony of betrothal, they return to the house of the would-be bride's father and bring ornaments, clothes, etc., and sweets or sugar which last are distributed among the members of the *baradari*.			
Total ...	1	2	3

B. Of a son—

When the barber and the *Bachola* arrive at the house of the bridegroom, their (the groom's) hereditary *Jhiwar*—water-carrier—awaits for them with a vessel full of water, just outside and close to the door of the house. Out of the cash of Rs.1-2-0, which they are furnished with by the bride's guardian or father, they drop the two-anna bit in the *Jhiwar's* vessel and then pass into the house. The *Bachola* and the barber are entertained for about two days. All the other relatives of the bridegroom visit him and are entertained. (The *Bachola* is sometimes accompanied by his wife too.)

Cost of entertainment of the *Bachola*, his wife and the barber—

	Rs.	A.	P.
Ghee	4	0	0
Sugar	1	0	0
Rice, wheat, etc. ...	1	0	0
Total carried over ...	6	0	0

	Rs.	A.	P.	Rs.	A.	P.
Brought forward ...				6	0	0
Cost of entertainment of the other guests, relatives, and the members of the *baradari*—						
Rice, 2 maunds (*kham*) at 8 seers for a rupee	4	0	0			
Gur and *shakkar*, 1 maund (*kham*) at 4 seers for a rupee	3	3	3			
Ghi, 10 seers (*kham*) at Re. 1 per seer *kham*	10	0	0			
Mash (*dal*), 20 seers (*kham*) at 8 seers for a rupee	1	0	0			
Wheat flour, 3 maunds (*kham*) at 7 seers for a rupee	6	13	9			
Total ...				25	1	0
The betrothal ceremony is performed by the *Prohit* and the barber gives a rupee to the bridegroom and places a dry date in his mouth. The members of the *baradari* perform *varna* and that money is given to the barber. Money paid by the bridegroom's guardian or father to the barber as *varna* amounts to ..				1	0	0
After two days the barber returns to the bride's house and is given—						
Fees	1	8	0			
Travelling allowance ...	0	8	0			
A piece of cloth ...	1	4	0			
Total ...				3	4	0
In addition to that he carries for the bride—						
Sugar, 5 seers (*kham*) ...	2	0	0			
Rice, 5½ to 10 seers (*kham*) ...	0	6	0			
Dry fruits, almonds, dry dates and dry grapes, 1¼ seers to 10 seers (*kham*)	1	0	0			
Hina, 1¼ seers (*kham*) ...	0	6	0			
Total ...				3	12	0
Total carried over ...				39	1	0

	Rs.	A.	P.	Rs.	A.	P.
Brought forward ...				39	1	0

Also—

Ornaments (at the least) —

	Rs.	A.	P.	Rs.	A.	P.
Pranda (an ornament for the braid of hair) 4 *tolas* in weight (depends on the *haissiat* of the party) ...	2	0	0			
Chaunk and *phul* and *gokhru* and *karian* (made of silver or gold) ...	100	0	0			
Total ...				102	0	0

Also—

Clothes—at the least three in number—

	Rs.	A.	P.
One *dupatta*, One shirt, and One *pyjama* — for the bride ...	20	0	0

The *Bachola* is also given something for his pains and that depends on the amount of the services rendered by him. He is given at the least—

	Rs.	A.	P.	Rs.	A.	P.
One piece of cloth	4	0	0			
In cash	1	0	0			
Total ...				5	0	0

The *kamins* too receive *inams*, thus (though the amount differs according to the *haissiat* of the bridegroom or his guardian)—

	Rs.	A.	P.	Rs.	A.	P.
Prohit	1	0	0			
Panda	1	0	0			
Hereditary barber ...	1	0	0			
Jhiwar	1	0	0			
Mirasi	0	8	0			
Chamar	0	8	0			
Carpenter...	0	4	0			
Smith	0	4	0			
Village *fakir*, and *bharai* ...	0	4	0			
Nanka nai (hereditary barber of the bridegroom's mother's family)	0	4	0			
Nanka mirasi (hereditary *mirasi* of the bridegroom's mother's family) ...	0	4	0			
Total ...				6	4	0
Distribution of 3 maunds (*kham*) of *shakkar* among the members of the *baradari* at 5 seers a rupee ...				9	9	7
Total ...				181	14	7

The sum of Rs. 182 spent for the performance of betrothal alone is very high indeed for a poor zamindar.

Marriage—

A. Of a son—

	Rs.	A.	P.	Rs.	A.	P.
The time of marriage is settled by the bride's party in consultation with the *Panda* or *Prohit* (Brahmans) and intimation of the same is sent to the bridegroom's party through a barber whom they pay ...	0	8	0			
A few days before the marriage the barber is sent again with a *Saha-chithi*—a formal letter, inviting the bridegroom's party, who pay again to the barber ...	0	8	0			
A few days before the marriage, the ceremony of *Batna*—cleansing and perfuming the body of the bridegroom - is performed. On that account is given to the *Jhiwars*—						
In cash...	0	2	0			
Wheat worth	0	2	0			
Oil (mustard)	0	1	0			
Wheat and oil are given on the second day too	0	8	0			
Total ...				1	8	0
Then takes place the *Sehra-bandan* ceremony. The bridegroom winds a turban round his head. Some time after taking bath, when the old clothes worn by the bridegroom are made over to the barber, the *Anjari* ceremony is performed.						
The *Sehra-bandan* ceremony involves the giving of *inams* :—						
Panda	1	0	0			
Other *kamins* at one rupee each ..	5	0	0			
Total ...				6	0	0
Total carried over ...				7	8	0

	Rs.	A.	P.	Rs.	A.	P.
Brought forward ...				7	8	0
The *Anjari* ceremony involves the following expenditure—						
To the sister or sisters ...	2	0	0			
Prohit...	1	0	0			
Mirasi...	0	4	0			
Jhiwar...	0	1	0			
Mirasi's wife, who sings and beats a drum	0	1	0			
Total				3	6	0
Before starting for the bride's home, they pay to—						
(1) The *Chuhra*	1	0	0			
(2) The man in charge of the temple	1	0	0			
and also entertain a number of *Fakirs* or *Brahmins* ...	5	0	0			
Total ...				7	0	0
Then the marriage party starts in *gaddas* and *gaddis* (carts), the hiring or feeding cost of which may be estimated at ...				15	0	0
With bands playing, the marriage party starts and in or about the evening of the same day reaches the bride's village. The arrival is marked by—						
(*i*) *Amadni* or throwing money in a sacrificial way over the head of the bridegroom	10	0	0			
(*ii*) *Peshkara* or fireworks ...	10	0	0			
Total ...				20	0	0
The marriage party then puts up in some place in or near the village and is served with sweet-water or tea, according to the season, by the bride's party. The bride's water-carrier is then paid ...				1	0	0
Then follow the *chauk-purna* and *kangna-bandhna* ceremonies which involve the making of payment to—						
The *Prohit*	1	2	3			
Other *kamins*	0	8	0			
Total ...				1	10	3
Total carried over ...				55	8	3

	Rs.	A.	P.	Rs.	A.	P.
Brought forward ...				55	8	3
A formal visit (*milni*) is paid by the bridegroom's party to that of the bride's party. The bride's party gives to the other, at the least, one rupee and a piece of cloth worth about Rs. 3.						
A distribution of *inams* follows :—						
Prohit	1	0	0			
Panda	0	8	0			
Mirasi, barber, and *Jhiwar* at annas 4 each	0	12	0			
The oilman	0	2	0			
Band-players	0	2	0			
Others	0	2	0			
Total ...				2	10	0
After dinner comes a ceremony known as *Ghora Bahera* and costs ...				1	2	0
Some presents are then sent to the bride (*Sohag-patari*) and cost ...				0	8	0
In the morning is sent to the bride *Barri* :—						
Clothes	200	0	0			
Ornaments	100	0	0			
Total ...				300	0	0
Sweets				2	0	0
Payment of *lags* to all the *kamins* follows and costs				16	2	6
Dinner follows—						
On this account the *Jhiwar* is paid ...				0	8	0
The giving and taking of dowry follows. It affects chiefly the bride's party. But the bridegroom's party has to pay to—						
(*a*) The *Prohit* ...	1	4	0			
(*b*) The barber ..	1	0	0			
Total ...				2	4	0
Total carried over ...				380	10	9

	Rs.	A.	P.	Rs.	A.	P.
Brought forward ...				380	10	9
The formal dismissal or better departure of the marriage-party then takes place. The palanquin of the bride is carried by the *Chamars* who are paid ...	4	8	0			
The barber's or *Jhiwar's* wife accompanies the bride on this occasion and receives about	4	0	0			
The playing of band and other entertainments cost about	30	0	0			
Miscellaneous expenses, including the making of presents of clothes to relatives, and the expenses incurred on the second visit of the bride to her husband's home (*Muklawa*) may be estimated at ...	150	0	0			
Total ...				569	2	9
B. Of a daughter—						
Entertainment of the marriage-party and relatives and visitors, including serving the *sharbat*, sweet water, or tea (Rs. 4 for each occasion) ...	8	0	0			
Meals (2 or 3 for about 80 to 100 people).						
Morning—						
Puri, *halwa*, two or three vegetables, and some preparation of sour-curds ...	60	0	0			
Evening—						
Rice, sugar and *ghi*, loaves and *dal* and some preparation of sour-curds ...	60	0	0			
The relatives reach a day or two before the *barat* (marriage-party) and leave after its departure ...	20	0	0			
Total ...				148	0	0
Inams to *kamins* of the bridegroom's party	15	8	0			
Miscellaneous (payments to *Prohit* and others)	9	8	0			
Total ...				25	0	0
Total carried over ...				173	0	0

	Rs.	A.	P.	Rs.	A.	P.
Brought forward ...				173	0	0
Dowry—						
Utensils—						
Karahi, loh, prat, thali, katora, garvi, and *baltuhi*	40	0	0			
Clothes	100	0	0			
Ornaments	100	0	0			
Palang (couch), *pira* (low chair) and quilts	30	0	0			
Total ...				270	0	0
Miscellaneous including the expenses on account of the *Muklawa* ceremony				30	0	0
Total ...				473	0	0

The estimates given above have been made with regard to the average marriage. It will be noticed that the cost of betrothal and marriage for both the parties amounts to more than Rs. 1,200* which is very high.

It does not include the price of the bride herself, if any has to be paid. When a price is paid for the bride, the other expenses are often reduced. Before leaving the subject, it may be noted, however, that it is not every Jat who has to pay or receives a price for a wife or girl, and that there are many Jats who abhor and look down upon such transactions.

When a widow is married or when an informal marriage takes place, the ceremony performed is known as *Chadar-andazi* (throwing of the sheet) or *karewa*. A chapter is read out of the Sikh bible and the priest throws a sheet round the man and the woman. The priest is paid Re. 1-4-0 and some undrained sugar is distributed among the members of the community (*baradari* = brotherhood). The whole ceremony costs about Rs. 20.

		Rs.	A.	P.
*Betrothal ...	Bride's side	1	2	3
	Bridegroom's side	131	14	7
Marriage ...	Bride's side	473	0	0
	Bridegroom's side	569	2	9
	Total ...	1,225	3	7

When a person's daughter's or sister's children, or the children of his father's sister are betrothed or married he has to give something. Betrothal does not cost much, but on the occasions of marriages the average expenses are about Rs. 50.

When a person's daughter or sister or father's sister gives birth to her first child, she is given "birth dues" *Jamni—gur, ghi,* clothes, and sometimes ornaments, involving an expenditure of Rs 20 and more. When a daughter, or a sister or a father's sister* becomes a widow, she is given something as *burra*†. When the father-in-law of a daughter, a sister or a father's sister dies, the son of the deceased is furnished with a turban, costing about Rs. 5. The occasional gifts made to the relatives need not be estimated ; they depend on the will, the desire and the financial condition of the giver.

Whenever some ceremony, betrothal or marriage takes place among the members of the *baradari, varna* (sacrificial money) or *neunda*‡ has to be given.

The death of an old man or woman too is a costly affair. A red silken cloth has to be thrown over the body of the deceased. Relatives and others are entertained and given clothes. Those who perform the obsequies claim a heavy toll. The cost of the whole affair may sometimes run as high as Rs. 500. On an average the expenses amount to Rs. 100 or so.

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* Not always in the case of father's sister.

† The giving of *burra* money is one of the best social institutions. All the friends and relatives contribute something towards the maintenance of the widow. It is not a social loan like the *neunda* (page 158). The *neunda* money must be returned by the recipient or his heirs or representatives. The *burra* money is a *gift* which, without any reproach, may never be returned. A *neunda* when offered by another may or may not be accepted. *Burra* money, when offered, cannot be refused.

‡ For an explanation see page 157 please.

CHAPTER XII.—FAMILY BUDGETS.

No attempt has been made to discuss the question in full. Three family budgets—one of a Jat, another of a Gujar and the third one of a Chamar—have been given below. The zamindar or better the villager has no idea of keeping accounts and never keeps them. When questioned, he furnishes information from memory quoting approximate figures in round numbers. A man when questioned as to how much *gur* he produced, said, *koi pandran bis man*, about 15 or 20 maunds. No pretension can be or has been made with regard to the accuracy of these figures from a scientific point of view. The villagers' own method has been followed in so far that the figures are quoted in round numbers. They have been put down as supplied by the villagers themselves. All the figures relate to the year 1919

Annual family budget of a Jat family consisting of—

2 brother-owners,
1 woman,
2 children,

owning about 14 acres of cultivable land.

Income.

			Rs.
A.—From the field—			
Wheat	58	maunds valued at	290
Maize	19	,, ,, ,,	76
Gram	10	,, ,, ,,	50
Gur	32	,, ,, ,,	256
Cotton	5	,, ,, ,,	65
Dal	20	seers ,, ,,	5
B.—From the sale of fruits of a garden			8
C.—Other sources			25
		Total	775

Less—

	Rs.	
Payments made to labourers	52	
Land revenue, local rates, and cesses and *malba*	48	
Purchase of iron or implements	8	
Total		108
Net income		667

Expenditure.

		Rs.
A.—Produced at home—	Rs.	
1. *Wheat 46 maunds valued at	230	
2. *Gram 10 „ „ „	50	
3. *Maize 16 „ „ „	64	
4. *Gur* and *Shakkar* 8 maunds	64	
B.—Partly produced or made at home—		
Dal, 1 maund	10	
Clothing	80	
Total		498
C.—Purchased from the market—	Rs.	
Drained sugar	10	
Tea	1	
Salt and spices	4	
Medicines	20	
Utensils	2	
Tobacco	6	
Total		43
D.—Other Expenses—	Rs.	
Repairing of houses	3	
Education and Books	12	
Total		15
E.—Social expenses—	Rs.	
Giving of *neundas*	40	
Performance of the funeral rites of two deceased relatives	125	
Total		165
F.—Miscellaneous expenses—	Rs.	
Litigation (including *bribes*)	15	
Miscellaneous	20	
Total		35
G.—Purchase of cattle		80
Total		836

There was thus a deficit of Rs. 169 and the family actually incurred a debt of Rs. 160.

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*Pottery is also purchased in exchange for "grains of all kinds." The same is the case with most of the vegetables consumed in a family. Charity is also made in this form.

The figures of the budget relate to 1919. It may be pointed out that—

(1) the expenses made on account of medicines are higher than the average, because some of the members suffered from influenza;

(2) The expenses on account of—

(*i*) the performance of funeral rites of the relatives, and

(*ii*) the purchase of cattle,

are non-recurring expenses ;

(3) *Neundas* are recurring expenses ; some year there take place a large number of marriages among the members of the *baradari*, and some year the number of such marriages may be comparatively small.

Annual budget of a family of *Gujars* consisting of—

1 man,
1 woman,
2 children,

owning 1·5 acres of land as occupancy tenants, but cultivating about 6·5 acres.

	Rs.	Rs.
Income.		
A.—Field work—		
Gur 6 maunds valued at	48	
Wheat 43 maunds	215	
Maize 4 maunds...	40	
Cotton 20 seers	7	
Total ...		310
Plus sale of *Ghi*		50
Total ...		360
Less—		
Payment on account of land revenue, local rates, and cesses and *malba* ...	7	
Cost of iron or implements	8	
Occasional help taken of hired labourers ...	5	
Total ...		20
Net income		340

Expenditure.

	Rs.	
A.—Produced at home—		
*Wheat 43 maunds valued at...	215	
*Maize 4 maunds valued at ...	40	
**Gur* 1 maund	8	
Total		263
	Rs.	
B.—Purchased from the market—		
Salt and spices	2	
Dal	5	
Meat	2	
Tobacco	5	
Clothing	40	
Oil	4	
Medicines	5	
Total		63
C.—Miscellaneous		20
D.—House-building		60
Total		406

There was a deficit of Rs. 66, according to the figures in the budget. The family incurred a debt of Rs. 80. The money was borrowed from the village Co-operative Credit Society.

Ordinarily, it seems that the family is able to make both ends meet.

Annual family budget of a *Chamar* family consisting of—

1 man,
1 woman,
4 children.

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* Includes the payments in kind made on account of the purchase of pottery and vegetables

Income.

	Rs.	A.	P.
A.—Produced as a cultivator—			
Wheat 2 maunds valued at	10	0	0
Maize 2 maunds	8	0	0
B.—Earned as a *sepidar* or permanent *kamin*—			
Wheat 4 maunds valued at	20	0	0
Maize 2 maunds valued at	8	0	0
Gur 8 seers valued at	2	0	0
C.—Earned as a reaper and labourer in the *Bet* *—			
Wheat 4 maunds valued at	10	0	0
Munji 4 maunds valued at	20	0	0
D.—Sale of *ghi*	50	0	0
E.—Sale of a cow†	30	0	0
F.—Earnings as a labourer at between 5 annas and 6 annas a day ; about	55	0	0
G.—Earnings of the woman on account of doing odd jobs—			
Wheat 20 seers	2	8	0
Maize 20 seers	2	0	0
H.—Earnings for making ropes, etc.	8	0	0
I.—Earnings of children on account of picking cotton 6 seers ..	2	0	0
Total ...	227	8	0

Expenditure.

	Rs.
Wheat 21 maunds valued at	120
Maize 4 maunds valued at	40
Rice 4 maunds	20
Gur 8 seers	2
Dal	3
Tobacco	5
Oil	3
Clothes	20
Medicines	2
Salt and spices	2
Miscellaneous	10
Total ...	227

Both the income and expenditure sides balance, and that is what the head of the family himself said.

It should be noticed, however, that no allowance has been made for the consumption of *ghi* and *lassi* (butter-milk), sour-curds and fuel. A Jat invariably consumes all these, and a sum of Rs. 100 may safely be added to the income and expenditure side of his budget. A *Gujar*, if not well off, contents himself with *lassi* alone. A *Chamar*, sometimes goes without *lassi*. Fuel is consumed by all. It consists of cow-dung cakes and wood, but no payment is ever made on account of either.

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* Page 144.

† The cow had been taken on *Adhiara* (page 132)

On the basis of these family budgets, an attempt may be made to draw up a list of the necessaries of life and efficiency. Without entering into a discussion as to whether necessaries of life include simply the things physiologically necessary to maintain life or also the things necessary to secure the continuance of the race, and if so as to what should be the average length of life and the number of children, a list may be drawn up thus :—

Necessaries of life—

(1) *Foodstuffs.*—Wheat, maize, gram, rice, etc., some milk, at least for children.
(2) *Clothes.*—Sufficient to protect from cold and heat.
(3) House-room.
(4) Medicines.
(5) Salt.

Necessaries of efficiency

Some milk and
Ghi, or
butter-milk and some sour-curds.
Good implements.
Good cattle.
Medicines
Shoes.
Thread and needle, oil, lucifer matches.

Conventional necessaries

Tobacco.
Tea.

*Conventional necessaries due to social customs—

(*i*) Some pretty clothes.
(*ii*) Some money for giving *neundas*.
(*iii*) Some ornaments.

CONCLUSION.

In comparing this study with that in which I helped Dr. Lucas last year, it is manifest that in this tract of country, the action of the *Chos* is very damaging to successful cultivation. The methods so far introduced to combat this evil have met with only a partial success, and until some more thorough-going remedy is applied, the cultivator will have to reckon the *cho* as one of his greatest enemies. Perhaps the building of storage reservoirs at the base of the Siwaliks is the only radical remedy for this disease, although re-afforestation will undoubtedly do much to check it

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*An objection might be raised against the inclusion of these. Conventional necessaries have been defined " as things which a person will insist on buying before he has completed his supply of necessaries." (Chapman, page 62, third edition, 1917.) Many a family would starve or semi-starve itself for the performance of some social functions, and in such cases the things purchased should certainly be considered as conventional necessaries.

One of the main causes of poverty throughout the older districts of the Punjab and found in this area in all of its intensity is fragmentation of holdings. When we find as many as 68 separate plots in a small holding of about 39 acres and also that the owners have kept no accurate record of some of these plots so that they have been cultivated by non-owners without the knowledge of the rightful possessors, we can see to what length this evil proceeds. The fragmentation of holdings is bound up with Hindu laws of inheritance, and of course the Muhammadans have adopted many of the Hindu customs. It is impossible for the Government to interfere in such matters. The only remedy is that of spreading education throughout the masses and *the education of men alone will not be sufficient, because the citadel of social and religious life is amongst the women.*

When we turn to the methods of cultivation we find lack of good manures, of good cattle and implements and of anything approaching scientific knowledge. We have another cause for the existing poverty. The number of plough cattle in this area has been decreasing in the last few years. The common belief is that it is due to the export of good cattle under the attraction of high prices and the increasing number of cattle butchered in the slaughter-houses; but until the average agriculturist pays more attention to the proper breeding and selection of his stock, it is almost inevitable that the drain upon the better stock will continue. Unfortunately, religious sentiment and the *gaoshalas* too tend to encourage the preservation of unserviceable cattle at the cost of better ones of fine breed. The quantity of fodder, in every area, is limited, and the pressure on the means of subsistence great. Even a slight drought or decrease in the quantity of fodder available, induces the farmer to reduce the number of his cattle. It is the best ones alone that can and do find a market. They are sold and the others are either kept, or find their way to the *gaoshalas* ultimately. The fodder which could have saved the good cattle (most of which find their way to the butchers) is used to maintain the unserviceable ones in the *gaoshalas*. Thus it is that, in the teeth of all the sentiment displayed for the protection of cattle, through the interplay of the various economic forces and ignorance, the number and quality of cattle is rapidly declining. Would it not be possible for the society and the private donors to convert the *gaoshalas* into cattle-breeding stations? The extension of the activities of the Veterinary Department in all of its branches would be a great help. Also the extension of the activities of the Agricultural Department in the establishment of small experimental farms here and there under conditions closely similar to those found amongst the agriculturists themselves, would be helpful. Perhaps the selection of an intelligent zamindar to whom special seeds, special implements, or special cattle could be supplied on certain conditions, would also stimulate change and enterprise. Such a selected farmer might be required to help his neighbours for a number of years in the improvement of their seed and stock and the whole experiment kept under careful supervision. The expansion of the agricultural staff and the use of the Travelling Demonstrators, would popularise the use of better seeds, manures, and implements, if the right men can be found for this work. The complaint is generally made in this area just at the present time that the Government is doing very little for the agriculturists. This complaint is found especially in the mouths of returned soldiers who have seen something of France and other countries in Europe. These zemindars do not realize that their own social customs very often block any desire of Government to help them. However, the last few years have brought a spirit of change and progress into the Punjab which it would be very unwise for the Government not to understand and to help.

Turning now to matters connected with the settlement of the land revenue, its incidence and collection, may I be pardoned for making a few remarks on a subject which is highly technical and entirely in the hands of the Government. In the first place, would it not be a good thing for the hard-pressed Settlement Officer to have on his staff a well trained economic expert—a man who would give his time entirely to the study of the economics of the villages and who would get closely into touch with the people and their needs. In such a way, it might be possible for the settlement to be made without so much friction as it undoubtedly creates today. And by making an economic survey of the area under assessment, by studying the habits of the people and the state of the society, by making experiments on a much wider scale than is possible at present, by making an allowance for the social and economic peculiarities of the area, and by basing the calculation of the net assets on the *actual cost of cultivation on all kinds of holdings separately*, he will be able to arrive at more equitable and fair results. In spite of the heavy cost of settlement operations, the common people derive no benefit from the reports of Settlement Officers. The report of such an expert will be a boon for the people, for it will not be a mere collection of dull statistical tables, but state the economic condition of the people as investigated by an expert and also perhaps some suggestions for improvement. As to the incidence of the land revenue, the Government so far has levied the rate on rich and poor alike. Would it be possible to introduce some measure of graded taxation, by which the very poor could escape entirely and those who are wealthy and large landholders could pay at a much higher rate? Of course, the methods already applied in the remission and reduction of land revenue work in this direction, but would it not be well to systemize this and allow those who have a net income of less than, say, Rs 50 to escape entirely from this taxation or to allow the poorer land-owning zamindars to pay at lower rates than the richer ones.

The Co-operative Credit Societies have been a great source of help and of education to the masses. There are, however, immense possibilities of development of this agency which depend mostly upon the character of the staff. No pain should be spared to secure efficient men who have the true missionary spirit and who are in this work from a sense of public service. The *Bank-wala* Sahibs and their Assistants are, even as it is now, looked upon with more affection by the people than any other class of Government service, and this is a great asset which should be cultivated and extended.

Such a study undoubtedly reveals poverty, perhaps not of a distressing and grinding variety, but sufficient to cause the legislator and the economist alarm. In the rapidly changing conditions of the present, unless the public and the Government are wide awake and give every assistance to the cultivating masses, the sweeping economic and social changes now in progress may be disastrous to the average cultivator.

Appen

Table showing the rainfall at Hoshiarpur

Year.		June.	July.	August.	September.	Total.	Average.	October.	November.
1900-01	...	·95	13·54	24·13	15·58	54·20	13·55	...	...
1901-02	...	·34	7·03	8·95	1·19	17·51	4·38	·18	...
1902 03	...	2·18	7·40	2·43	7·93	19·94	4·98	1·12	...
1903-04	...	·66	8·54	9·74	5·66	24·60	6·15	...	...
1904-05	...	·30	7·12	7·48	4·07	18·97	4·74	6·5	·80
1905-06	...	·59	5·61	5·23	4·14	15·57	3·89	...	...
1906-07	...	1·82	8·64	19·07	13·22	42·75	10·69	...	...
1907-08	...	·58	2·69	14·71	·20	18·18	4·55	...	·02
1908-09	...	1·02	11·65	15·43	2·68	30·78	7·69	...	·10
1909-10	...	1·85	14·72	10·14	7·26	33·97	8·49	·06	...
1910- 1	...	4·71	10·67	18·16	5·26	38·80	9·70	·82	..
1911-12	...	5·53	·93	12·11	2·48	21·05	5·26	·73	2·01
1912-13	...	...	9·67	9·93	·72	20·32	5·08	...	·54
1913-14	...	5·55	5·37	8·22	·34	19·48	4·87	·14	1·41
1914-15	...	4·14	21·32	3·97	10·35	39·78	9·94	1·65	·88
1915-16	...	·78	7·12	8·32	6·32	22·54	5·63	·93	...
1916-17	...	1·64	9·91	5·03	3·20	19·78	4·94	2·59	...
1917-18	...	3·14	18·08	21·16	21·21	63·59	45·89	6·58	...
1918-19	...	2·77	5·31	5·11	·48	13·67	3·42	...	·63

dix I.

from 1900-01 *to* 1918-19.

December.	January.	February.	March.	April.	May.	Total 8 months.	Average.	Total of the year.	Monthly average.
2·0	5·46	3·49	1·65	·14	1·27	14·01	3·50	68·21	5·68
·34	...	·09	·50	·66	·68	2·45	·61	19·96	1·66
...	4·12	...	2·80	...	1	9·04	2·26	28·98	2·41
1·73	1·23	·18	3·67	·42	·61	7·84	1·96	32·44	2·70
2·05	3·02	3·11	1·85	...	·27	11·75	2·94	30·72	2·56
·39	·17	3·68	1·45	·08	·58	6·35	1·59	21·92	1·82
3·80	2·64	7·03	4·07	1·33	·29	19·16	4·79	61·91	5·16
...	2·18	·87	...	1·88	1·42	6·37	1·59	24·55	2·04
·21	2·76	1·18	·03	1·32	...	5·68	1·42	36·38	3·03
1·29	1·32	·31	·03	·28	...	3·79	·92	37·76	3·14
·37	7·02	·35	7·26	·61	...	16·43	4·11	55·23	4·60
...	1·69	1·06	·11	·65	·78	7·03	1·76	28·08	2·34
·04	...	2·87	2·59	·61	3·20	9·85	2·46	30·17	2·51
·95	·76	1·83	·64	2·17	·50	8·40	2·10	27·88	2·32
·47	1·74	2·98	4·39	·56	·37	13·04	3·26	52·82	4·40
·24	·11	1·26	·13	...	·18	2·85	·71	25·39	2·11
...	·20	·02	·34	4·50	2·02	9·67	2·42	29·45	2·37
·53	·22	·08	4·46	2·78	...	14·65	3·66	78·24	6·52
·28	4·44	1·10	·62	·34	1·61	9·02	2·25	22·69	1·89

Appendix II.

VILLAGE INSPECTION NOTES ON LAST SETTLEMENT BY THE SETTLEMENT OFFICER.

Bairampur.—The proprietors here are Hindu Jats, industrious and thriving. The land immediately round this village is irrigated from Talwandi *Cho*, in which this village has a share of six days in the month, Talwandi and Khiala-Bulanda taking the rest. There is a good deal of good *Maira* and *Chhal*, and a little sandy *Maira*. Good crops of all kinds are grown. The present assessment is sufficient.

The village has undergone changes both to its advantage and disadvantage since settlement, and on the whole it is as good as it was at the time of last settlement. The considerable decrease in *Abi* has been recouped by an alternative rise in *Sailab*. The former is due to the depression of one *Cho*, while the latter can be attributed to the change in the course of another large *Cho* in the north, which is depositing at present good silt. This has reduced some cultivation also, but what is lost is generally poor land. Alienations are not much. Population has almost remained stationary. Seventy-one per cent. of the land is cultivated by the owners themselves, 9 per cent. by the occupancy tenants, 15 per cent. by tenants-at-will paying *batai.*

The recorded cultivated area is 238 acres as against 253 at last settlement.

The average cropped area as compared with the last settlement is as follows :—

	Maize.	Cane.	Cotton.	Wheat.	Wheat and Gram.	Total area cropped.
Last settlement	30	53	6	35	72	273
Now ...	19	47	8	89	32	265

The owners with the exception of a few are well off. The previous assessment data is as below :—

Assessment before last settlement	... ...	873
Jama by Revenue rate	... ...	841
„ „ produce estimate	... ...	1,079

Assessed at Rs. 873, rate per acre Rs. 3-7-0 or 4 per cent. above revenue rate and 19 per cent. below crop rate—

		Rs.
Present demand	...	875
Assessed at	...	925

(Sd.) R. HUMPHREYS.

Kutabpur.—The proprietors are Mussalman Naru Rajputs. The land seems to have improved since last settlement. There is a good deal of good "*chhal*" now especially to north-west. To the south is either *Cho* or sandy land. A good many mango-groves have been planted since last settlement. The old assessment is light and the revenue should now be certainly raised considerably, though not quite up to the revenue rate estimate. This village is commonly known as Kutapind, but the proprietors have asked that it may be called by the less shameful name of Kutabpur. The latter name has, therefore, been entered in the records. Revenue fixed at Rs. 300.

Owned by Naru Rajputs who are comparatively industrious and not very poor. Alienations are small for a Naru village. These have been taken up by money-lenders and Tarkhans of Hariana. Cultivated area per owner is 4 acres. *Sailab* has been recorded *Maira*, but I doubt it very much. There is *Sailab*. The *Cho* passes through the middle of the area. It has reduced the cultivation, but other land has been broken up and on the whole there is a considerable increase in the cultivation. To the south there is sand. The rest is good land. Exactly ¾ of the cultivation is carried on by the owners themselves. Fourteen per cent. is under the occupancy tenants who pay at two annas per rupee *malikana*. Eight per cent. by tenants-at-will paying *batai* ½.

The recorded cultivated area has extended from 169 to 202 acres. The average cropped area as compared with the last settlement is as follows:—

	Maize.	Cane.	Cotton.	Wheat.	Wheat and Gram.	Total area cropped.
Last settlement	24	11	6	51	48	188
Now ...	21	13	2	29	67	192

Amount of crops failed is always very large. The harvested area is only 91 per cent. of the total cultivation. This result is far below the Sirwal average.

The previous assessment data is as below:—

Assessment before last settlement	251
Last settlement:—*Jama* by Revenue rate ...	395
" " produce estimate ...	502

Assessed at Rs. 300, rate per acre Rs. 1-12-3 or 24 per cent. below revenue rate or 40 per cent. below crop rate.—

	Rs.
Present demand	273
Assessed at	350

The 16*th June* 1913. (Sd.) R. HUMPHREYS.

Mukimpur.—The proprietors are Hindu Jats and no land has been sold or mortgaged. The cultivated area has been much reduced by *Cho* action and suitable reductions have been given from time to time. The southern *Cho* near the village site appears to have threatened the village as far back as last settlement and the village still exists. There is another *Cho* to the north-east and the land beyond this is rather *kalrai*. The land to the north-west is good *chhal* and a good deal of sugar-cane is grown here. There are some good *shisham* plantations in the north. Some of the proprietors ply carts for hire at odd times and so add to their livelihood. The present assessment comes between the produce and Revenue rate estimates and may stand.

A small Hindu Jat village which is in good condition. No sale at all. Eight acres have been mortgaged, of which 7 among themselves. Cultivated area per owner is 3 acres. The soil is good except some sandy bits here and there. Cultivation has increased. Eighty-one per cent. is *khud-kasht*. Occupancy tenants are 12 per cent. The remainder is under tenants-at-will.

The recorded cultivated area is 98 acres; it was 84 at last settlement.

The average cropped area, as compared with the last settlement, is as follows :—

	Maize.	Cane.	Cotton.	Wheat.	Wheat and Gram.	Total cropped.
Last settlement ...	15	18	5	25	9	94
Now ...	14	5	3	21	39	111

Eight acres are rented at Rs. 89 or Rs. 17-13-0 an acre.

The previous settlement data is as below :—

	Rs.
Assessment before last settlement	276
Jama by Revenue rate	209
„ „ produce estimate	354

Assessed at Rs. 376, rate per acre Rs. 3-5-2 or 32 per cent. above revenue rate, and 22 per cent. below crop rate—

	Rs.
Present demand	279
Assessed at	375

(Sd.) R. HUMPHREYS.

Daulowal.—This village, owned by Mussalman Rajputs, is assigned in *Jagir* at a temple at Gardhiwala. A great *Cho* passes the northern boundary; and near it there is good *Jabar* which produces sugarcane and rice. There is a very fine mango-grove and the land to the west of Hariana road is good, that to the east is poor and sandy. The proprietors are on the whole well off and the assessment is very light and may be raised. The produce estimate comes out very high. The proprietors have now an *abadi* of their own in the village. Assessment increased by Rs. 50.

The village is assigned in *muafi* to the Hindu temple at Garhdiwala. The proprietors are Mussalman Naru Rajputs who appear to have rather prospered after last settlement and are very well off. 13 per cent. out of 14 per cent. total area sold has changed hands among the owners themselves. About one-half of the mortgages which are 8 per cent. in all have been retained in the village. The population has risen. *Sailab* has decreased by 6 acres while *Abi* increased from 4 to 21 acres. *Cho* has done no harm. The land on the whole is much above the average. The holdings are large (about 9 acres). Mango-groves have extended considerably. Thirty-five per cent. of the land is cultivated by the owners themselves. The rest is in the hands of tenants-at-will, paying *batai* at the rate of ½. The tenants are owners cultivating each other's land, Bahtis of the village and adjoining villages and Gujars of Mithawal. The recorded cultivated area is 294 acres as against 197 acres at last settlement. The variations in the area under principal crops are as below :—

	Maize.	Wheat.	Rice.	Cane.	Wheat and Gram.	Totat area cropped.
Last settlement...	12	81	13	20	20	185
Now	9	45	16	32	86	278

Owing to the increase in irrigated area, cane shows a considerable rise. There are 72 acres of *do-fasli* land which is ¼th of the total cultivation.

Area let on cash rents is comparatively very small.

The rents are received at an average rate of Rs. 16-3-0 per acre.

The previous assessment data is as below :—

		Rs.
Assessment before last settlement		... 285
Last settlement	*Jama* by Revenue rate	... 375
	„ „ produce rate	... 643

Assessed at Rs. 335 rate per acre Rs. 1-11-2 or 10 per cent. below Revenue rate and 48 per cent. below crop rate.

Present demand Rs. 335.

(Sd.) F. S. IFTIKHAR-UD-DIN.

Result by application of last revenue rates to the present cultivation Rs. 541—

	Rs.
Assessed at	... 650
1st five years	... 450
2nd five years	... 560

(Sd.) R. HUMPHREYS.

Sherpur Kham.—The proprietors are Hindu Jats, not Rajputs as recorded at last settlement. They are industrious and well off, but a disagreeable quarrelsome body of men. A clean *Cho* with water in it runs through the village area and from it some land is irrigated. The land to the south is rather sandy, to the north very good. The old revenue is very light and can be increased up to Rs. 575.

It is owned by Hindu Jats resident in the village 189 acres, Rajputs of Hariana 61 acres and Brahmans 3 acres. The Rajputs have no share in the *shamilat* of the village. Sale nominal, mortgages very little and only among themselves. Population has risen from 250 in 1881 to 280 in 1911. About one-third of the cultivation is under occupancy tenants. Gujars mostly paying revenue rates only. No irrigation from the *Cho.* A fine mango-garden is on the road. The Jat owners, besides cultivating their own lands, cultivate as tenants-at-will under Rajputs whom they pay mostly cash rent. On account of diluvion remission of 24 rupees has been given. The average area harvested under principal crops as compared with last settlement is as follows:—

	Maize.	Cane.	Cotton.	Wheat.	Wheat and Gram.	Total area cropped.
Last settlement	28	14	2	63	48	265
Now	28	8	6	18	83	221

Rise in cotton can be set against the decline in sugarcane. There are 68 acres of *do-fasli* land.

Twenty-five acres cultivated let for cash rents pay Rs. 367 or Rs. 14-11-0 per acre. Income from the sale of mangoes is said to be Rs. 100 per annum.

The previous assessment data is as below :—

		Rs.
Assessment before last settlement	...	467
Last settlement	*Jama* by Revenue rate	651
	„ „ produce estimate	674

Assessed at Rs. 875, rate per acre Rs. 2-15-2 or 11 per cent. below revenue rate and 14 per cent. below crop rate—

Present demand Rs. 551.

Result by application of last revenue rate to the present cultivation—

Assessed at Rs. 725.

(Sd.) R. HUMPHREYS.

The 16th July 1913.

Dudiana Kalan.—The proprietors are Mussalman Naru Rajputs who are well off and industrious. About a third of the cultivation is under the occupancy tenants, mostly Arains. The best piece of land is that to the north of the *Cho* recorded. Water is given to this land from the *Cho* generally. Sometimes, however, the people of Sherpur Kachha keep it all, but this is seldom. The land to the south-east is all poor and sandy and not worth much. The present assessment is very light and can certainly be raised considerably. Revenue raised to Rs. 1,375. A further increase may be expected at next settlement.

A larger *Cho* passes through the whole length of the area which used to irrigate a large amount of area 109 acres at settlement. It has since become deep and not liable to irrigate anything. The Maira is good especially near the *abadi* adjoining Niain. Sale 10 per cent. and mortgaged 15 per cent. have all been made in favour of outsiders. Cultivated area per owner is 6 acres. Population shows a slight rise. Thirty per cent. of the land is cultivated by the owners themselves. Twenty-five per cent. by the occupancy tenants paying *malikana* 7 annas or 12 annas per rupee. The tenants are mostly Arains. Twenty-eight per cent. by tenants-at-will paying cash rents ; 11 per cent. by the same paying *batai* ½.

The recorded cultivated area has been reduced by 16 acres and is 596.

The average cropped area as compared with the last settlement is as follows :—

	Maize.	Cane.	Cotton.	Wheat.	Wheat and Gram.	Total area cropped.
Last settlement	50	42	8	160	214	594
Now	32	13	10	34	315	604

One hundred and sixty-eight acres are rented at Rs. 1,666 or Rs. 9-14-8 an acre, which is decidedly low.

Colonel Montgomery expected an increase at this settlement, but in view of very low cash rents and since disappearance of *Abi* irrigation, am not inclined to follow his advice, rather reduction will be justice here, I think.

The previous assessment data is as below :—

		Rs.
Assessment before last Settlement	...	1,205
Last settlement	*Jama* by Revenue rate ...	1,551
	,, ,, produce estimate ...	1,647

Assessed at Rs. 1,375. Rate per acre Rs. 2-3-8 or 11 per cent. below revenue rate and 17 per cent. below crop rate—

Assessed at Rs. 1,550

(Sd.) R. HUMPHREYS

The 21*st June* 1913.

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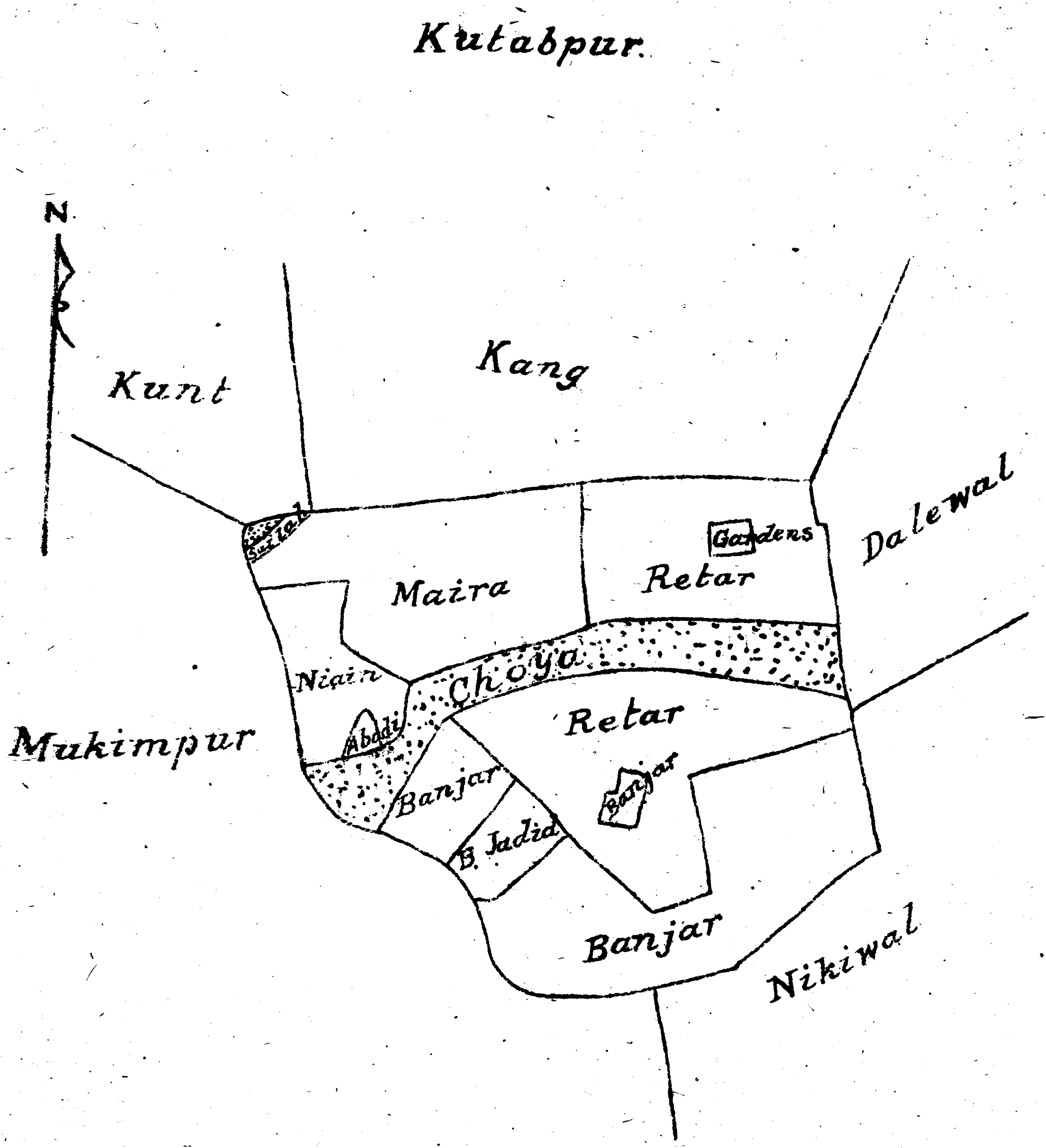
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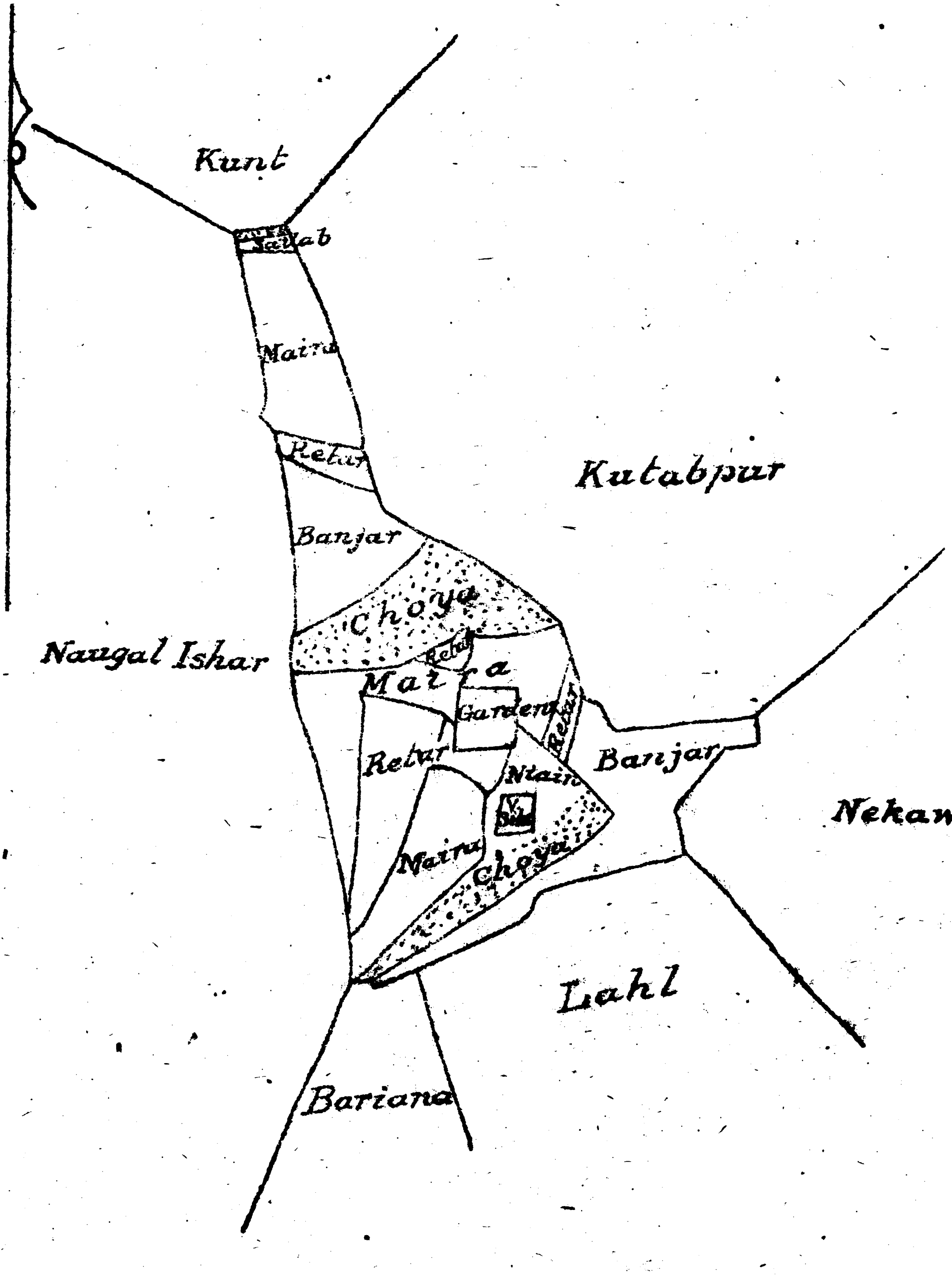
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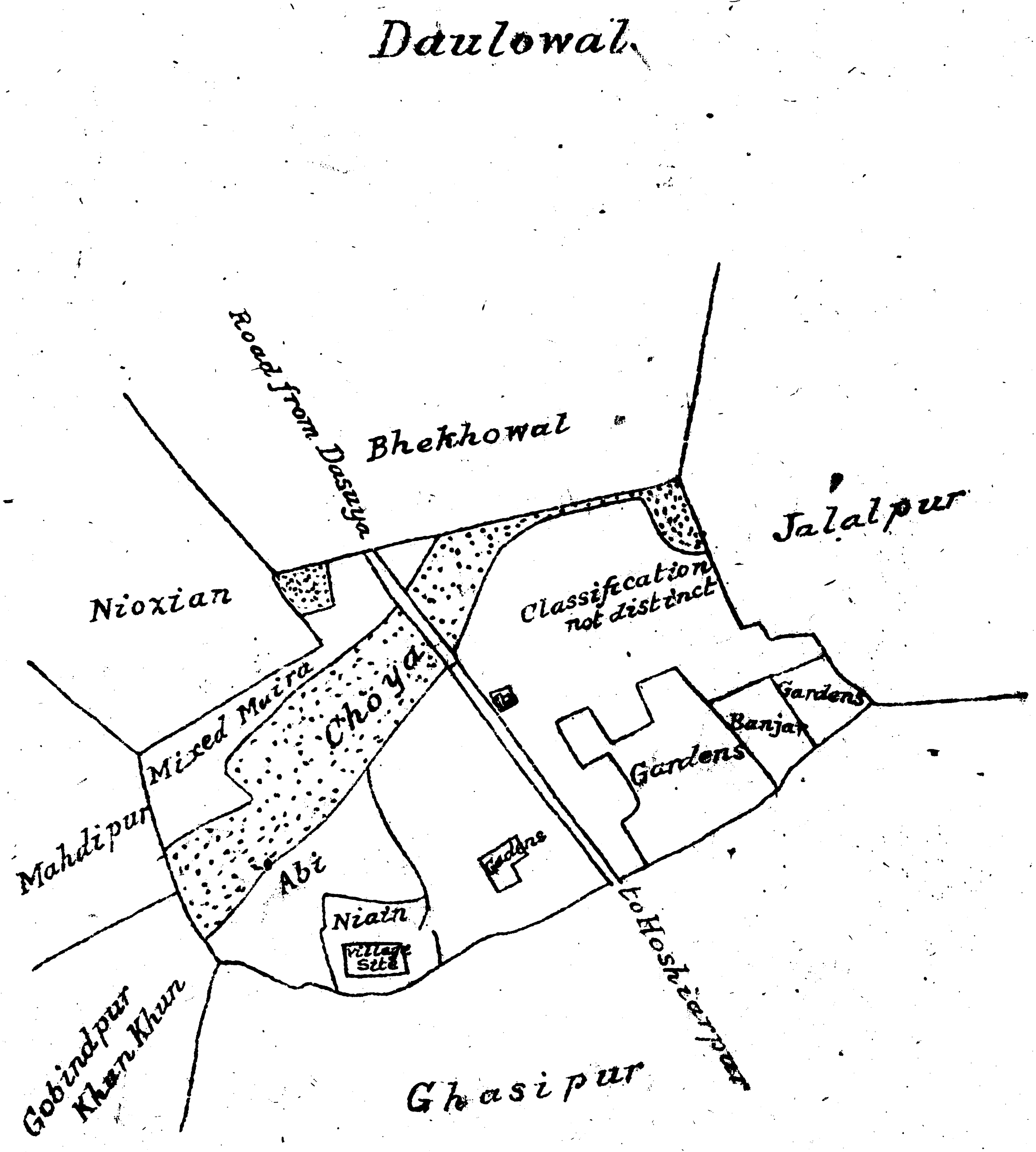
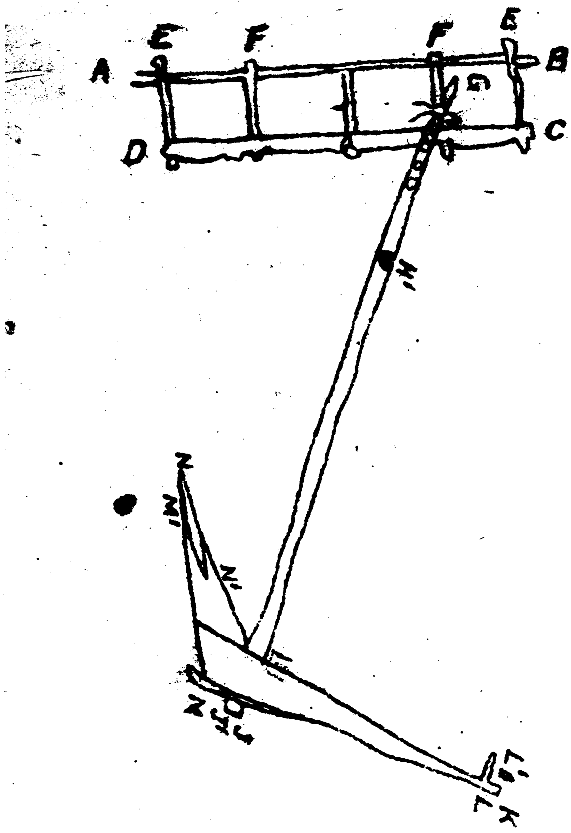

Daulowal
Road from Dasuya
Bhekhowal
Jalalpur
Nioxian
Classification not distinct
Mixed Muira
Choya
Gardens
Banjar
Gardens
Mahdipur
Gardens
Abi
Gardens
Niain
Village Site
to Hoshiarpur
Gobindpur Khan Khun
Ghasipur

Oversized Foldout

Oversized
Foldout

Oversized
Foldout

A Plough and a Yoke



ABCD = Pijali (yoke).

E = Arli (Pl. Arlian).

F = Muthri (Pl. Muthrian).

AB = Jungla.

CD = Phat,

GHKMN = Hal (Plough).

GHH' = Sannha. 2'-6"

HI = Hals. 4'-6"

JJ' = Pachraogi.

KL = —2·5"

L'L = Hathi (handle) —4·5"

LJ = 2'—5·3"

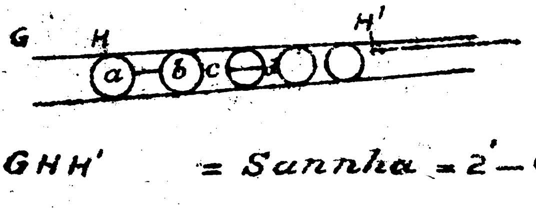
JM = —8·2"

KM = Munna 3'— 4"

MM' = 1'— 5·5"

N' = Kunda.

NN' = Phal (Ploughshare) 1'—4½"



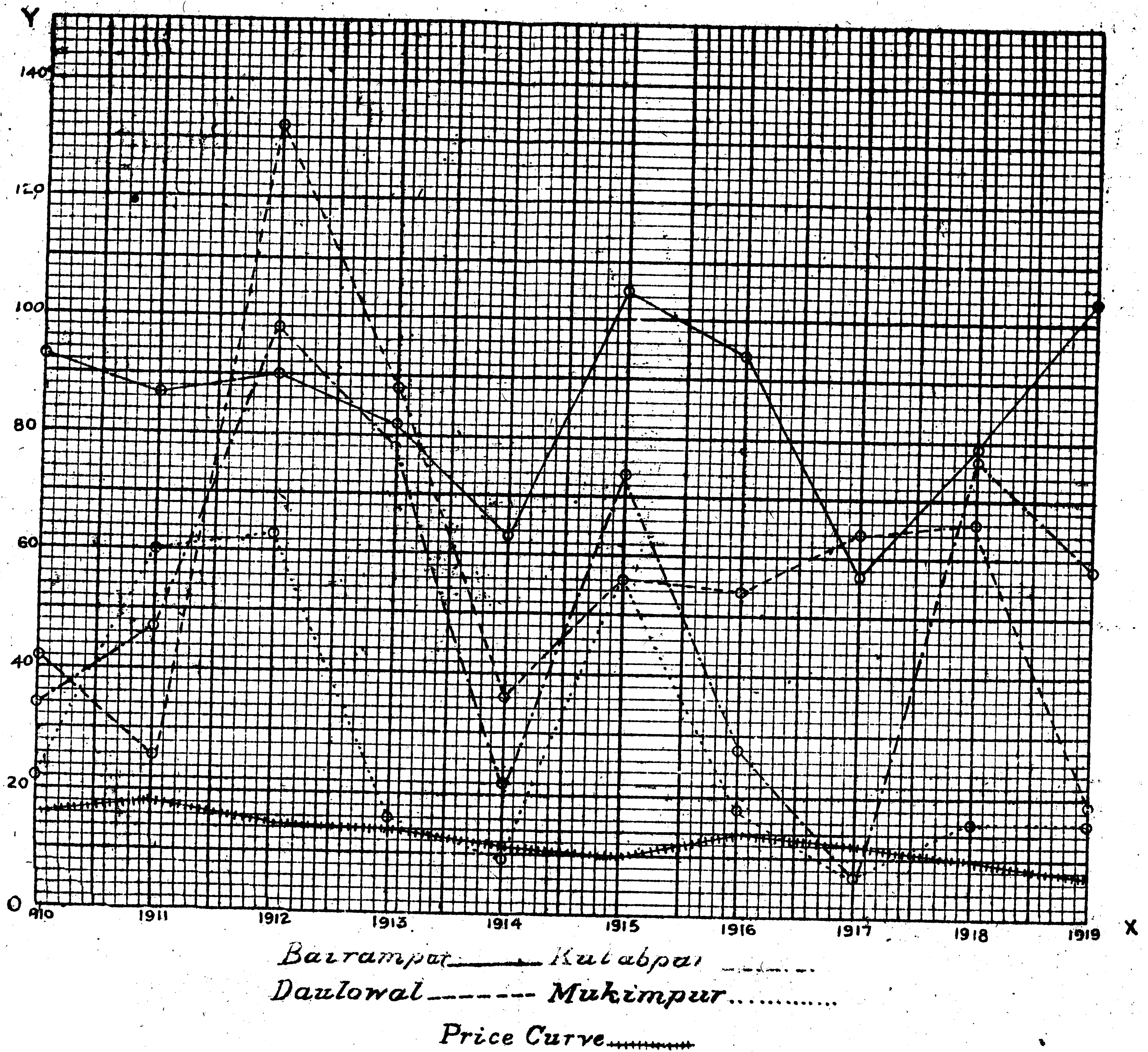
GHH' = Sannha = 2'—6"

GH = 0—8".

ab = 0—2" (approximatel

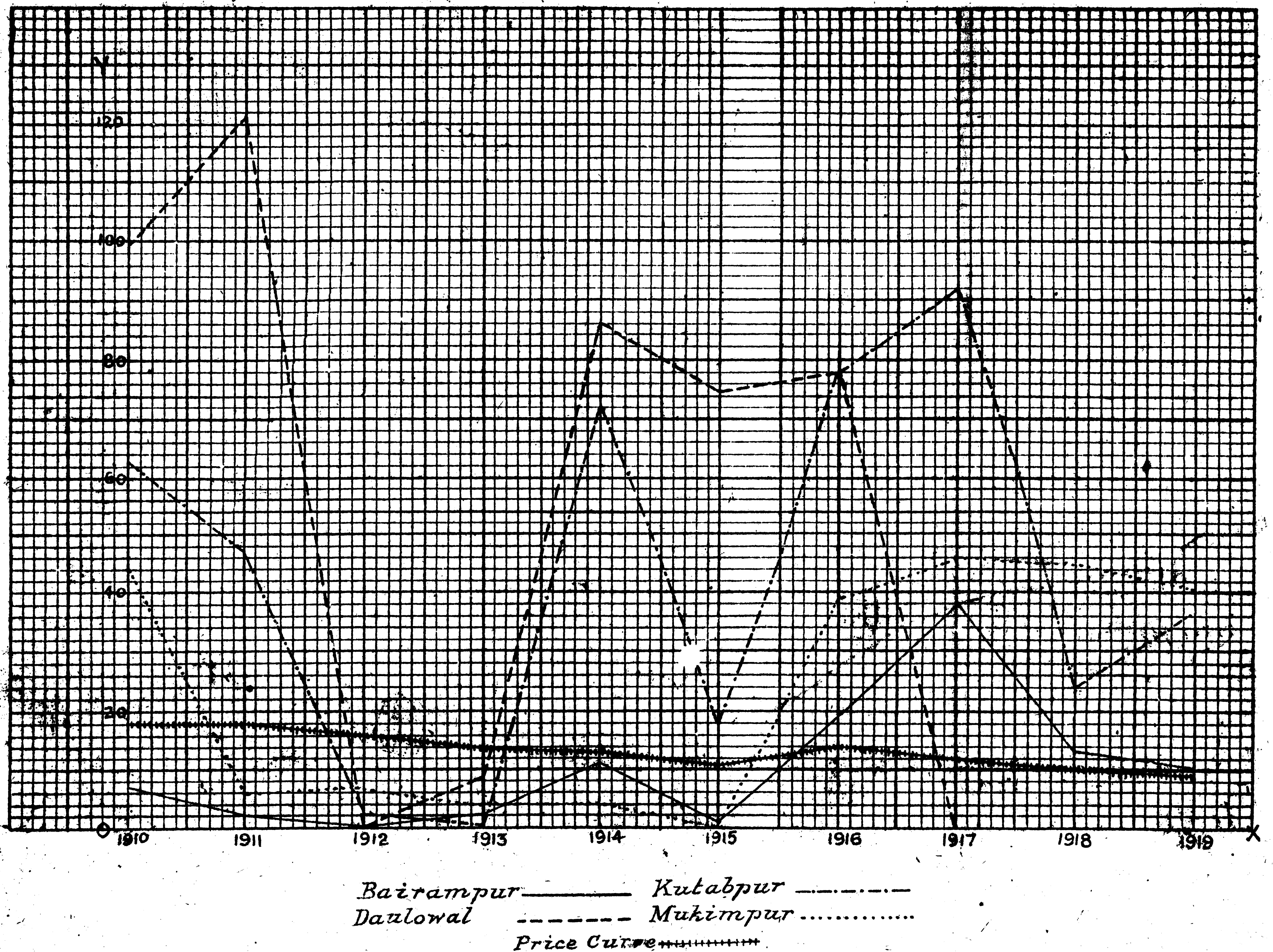
cd. the diamater of each hole—less than 1," about ·95

Graphical Chart showing acreage under Wheat.



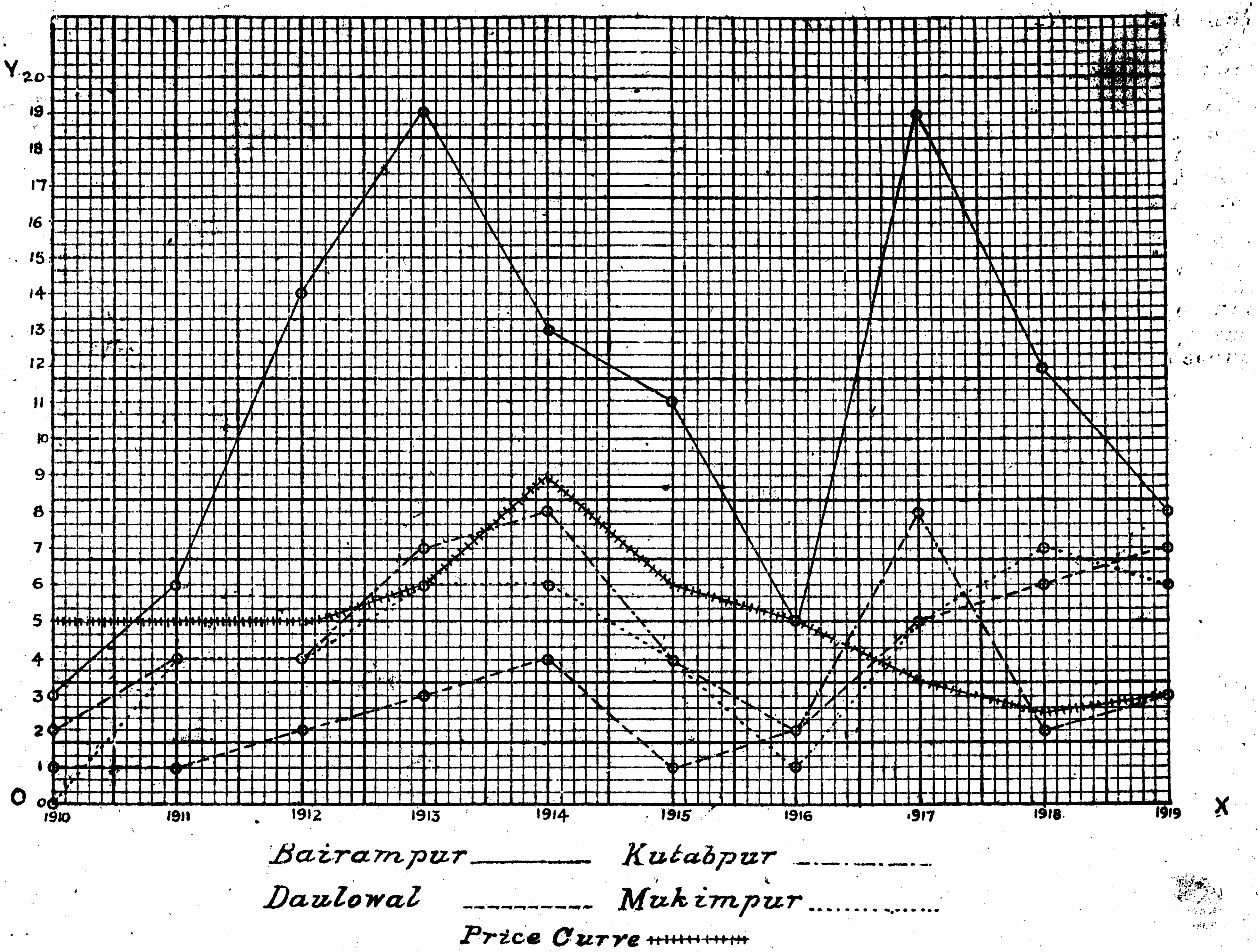
The units along O Y repesent acres except in the case of the Price Carve where they represent the number of seers for a rupee.

Graphical Chart showing the acreage under Wheat and gram.



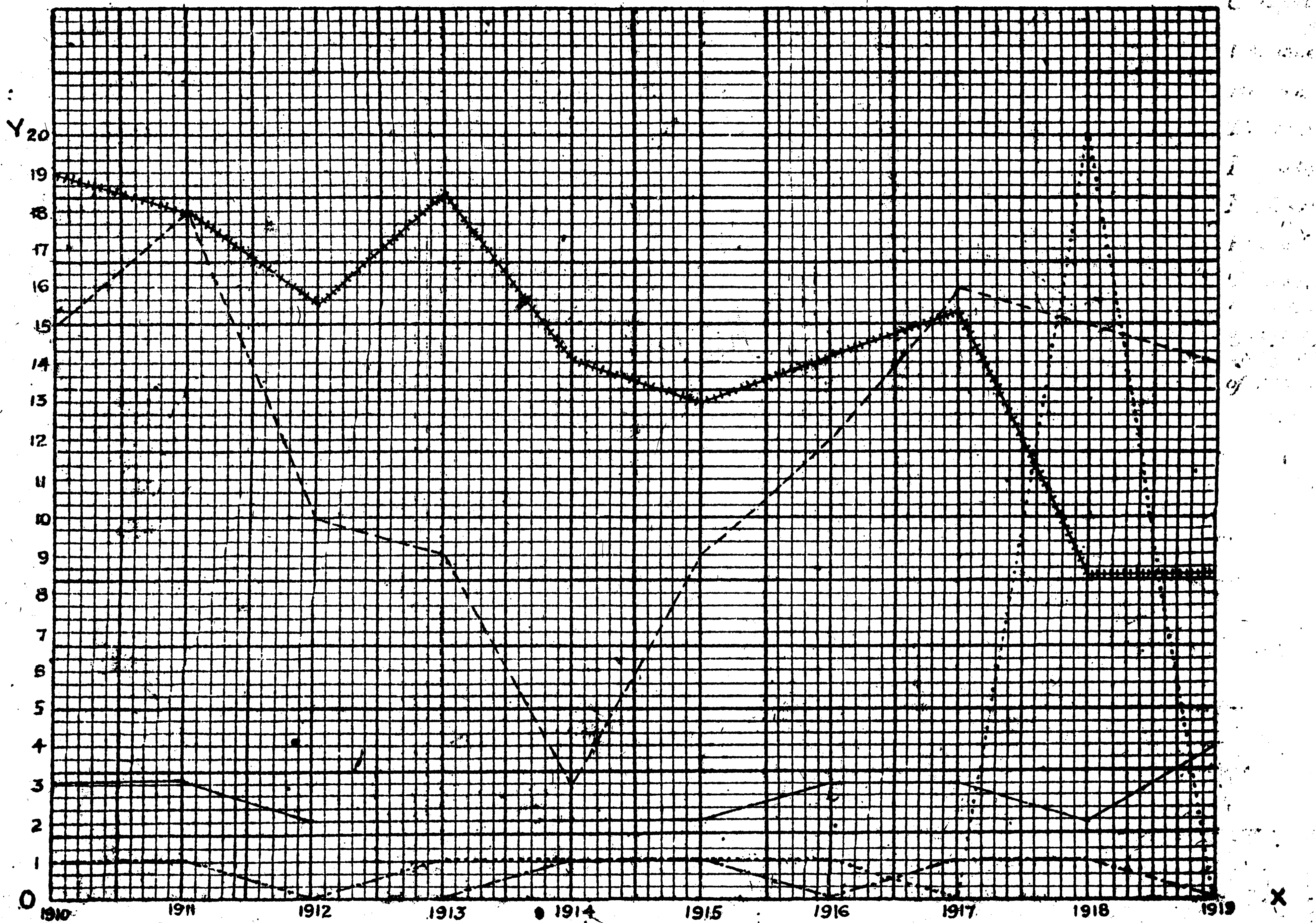
The units along OY represent acres except in the case of the Price Curve where they represent the number of seers for a rupee.

Graphical Chart showing the acreage under Cotton.



The units along O Y represent acres except in the case of the Price Curve where they represent the number of seers for a rupee.

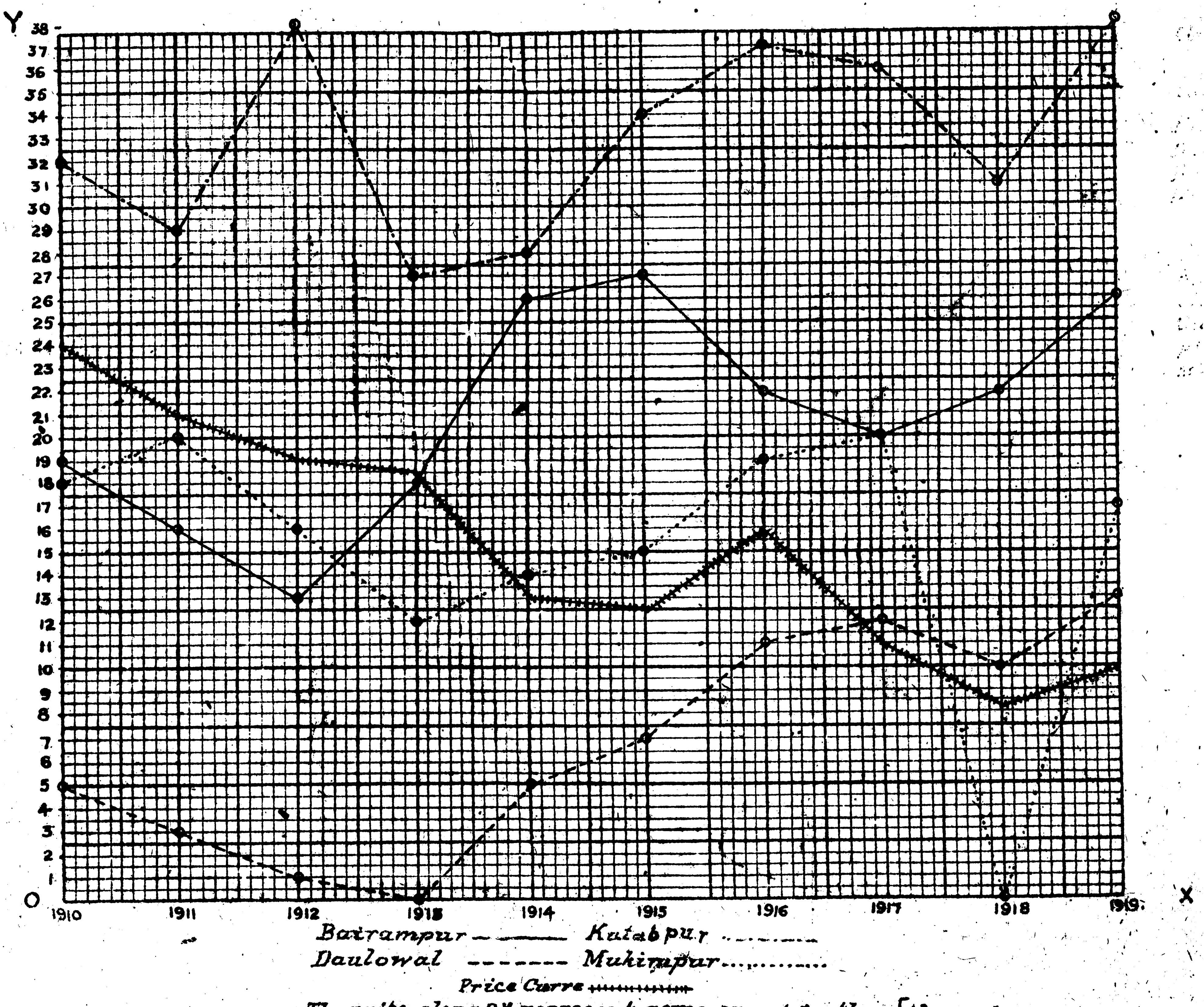
Graphical Chart showing the acreage under Rice.



Bairampur ————
Kutabpur —.—.—.—
Daulowal ------------
Mahimpur..............
Price Curve ++++++++++

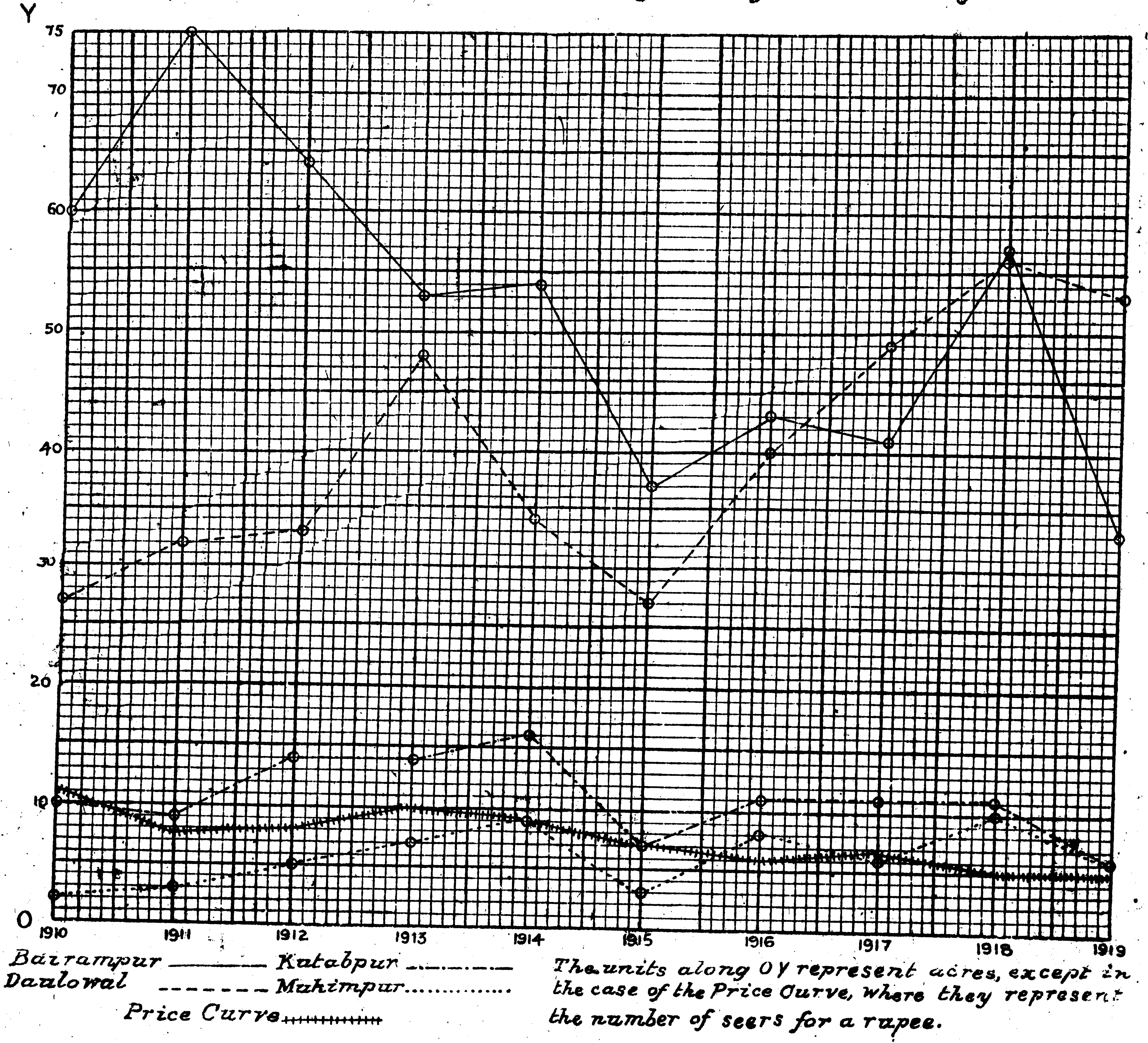
The units along OY represent acres, except in the case of the Price Curve where they represent the number of seers for a rupee.

Graphical Chart showing the acreage under Maize.



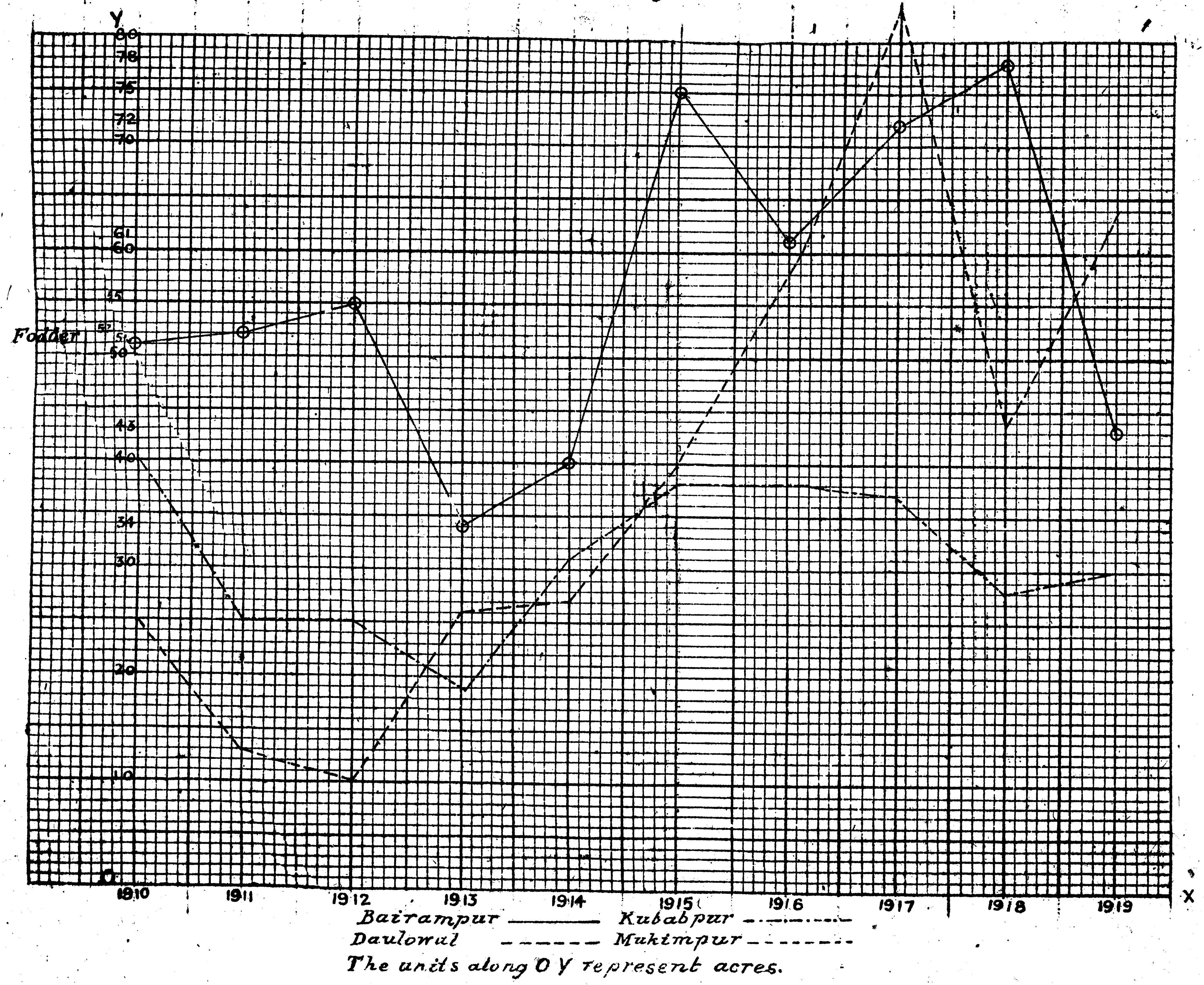
The units along OY represent acres, except in the case of the price Curve where they represent the number of seers per a rupee.

Graphical Representation showing acreage under Surgarcane.



The units along OY represent acres, except in the case of the Price Curve, where they represent the number of seers for a rupee.

Graphical Chart showing acreage under Fodder.

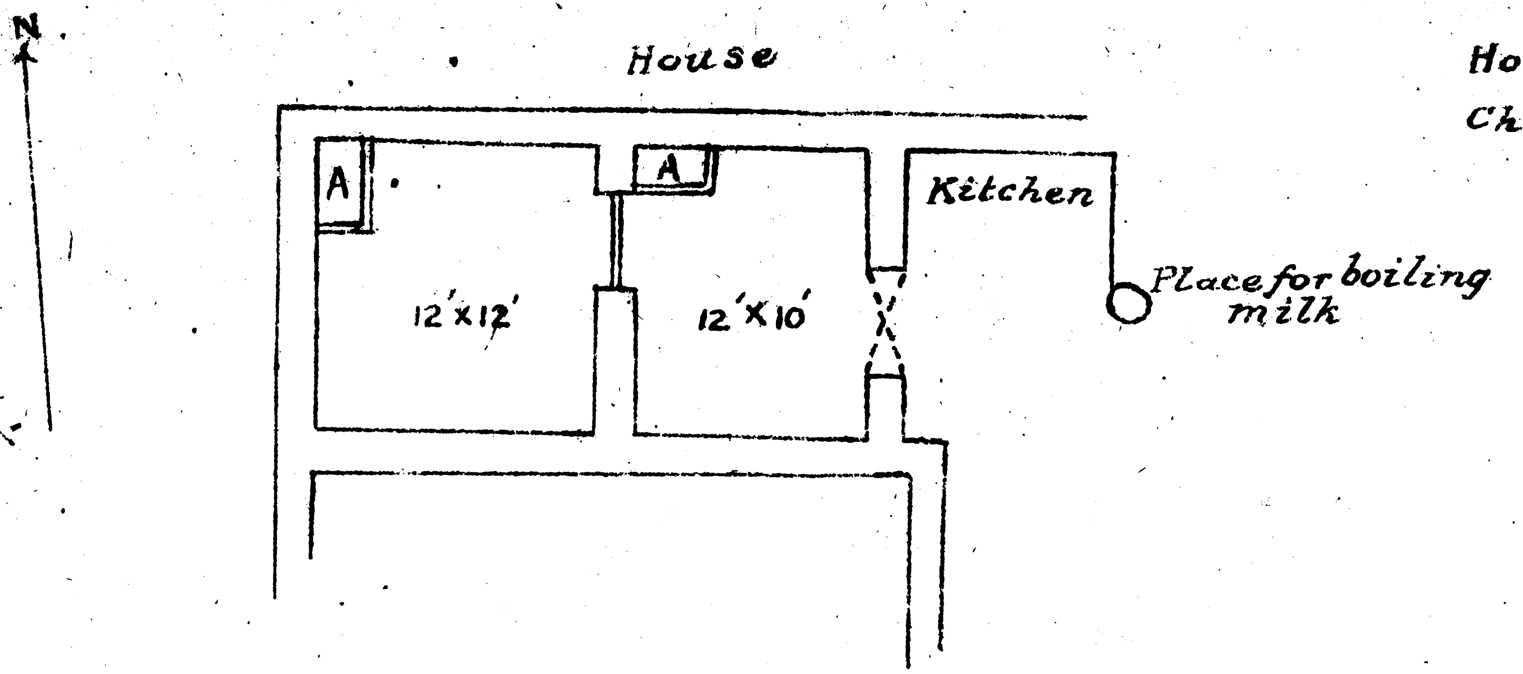


The units along OY represent acres.

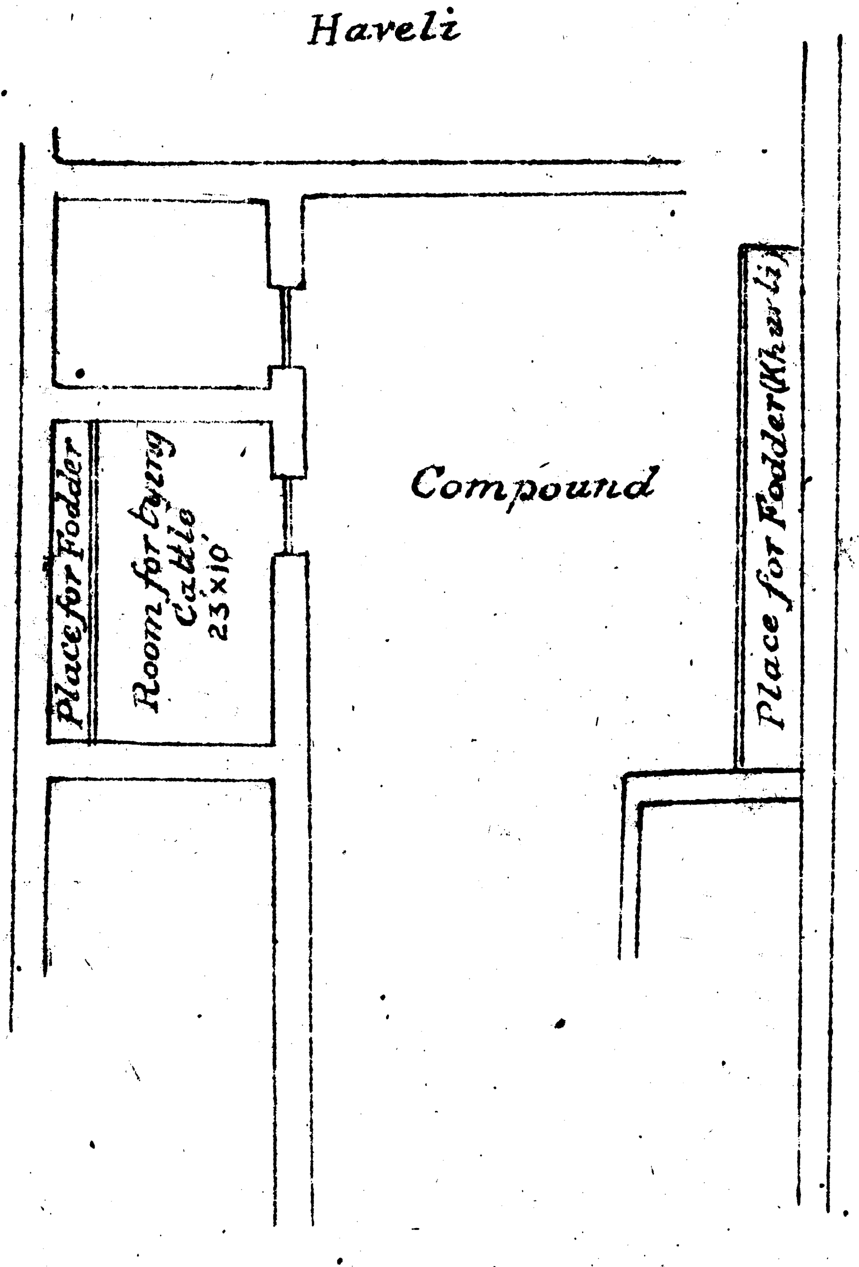
Oversized Foldout

House & Haveli
of
Chajju Jat

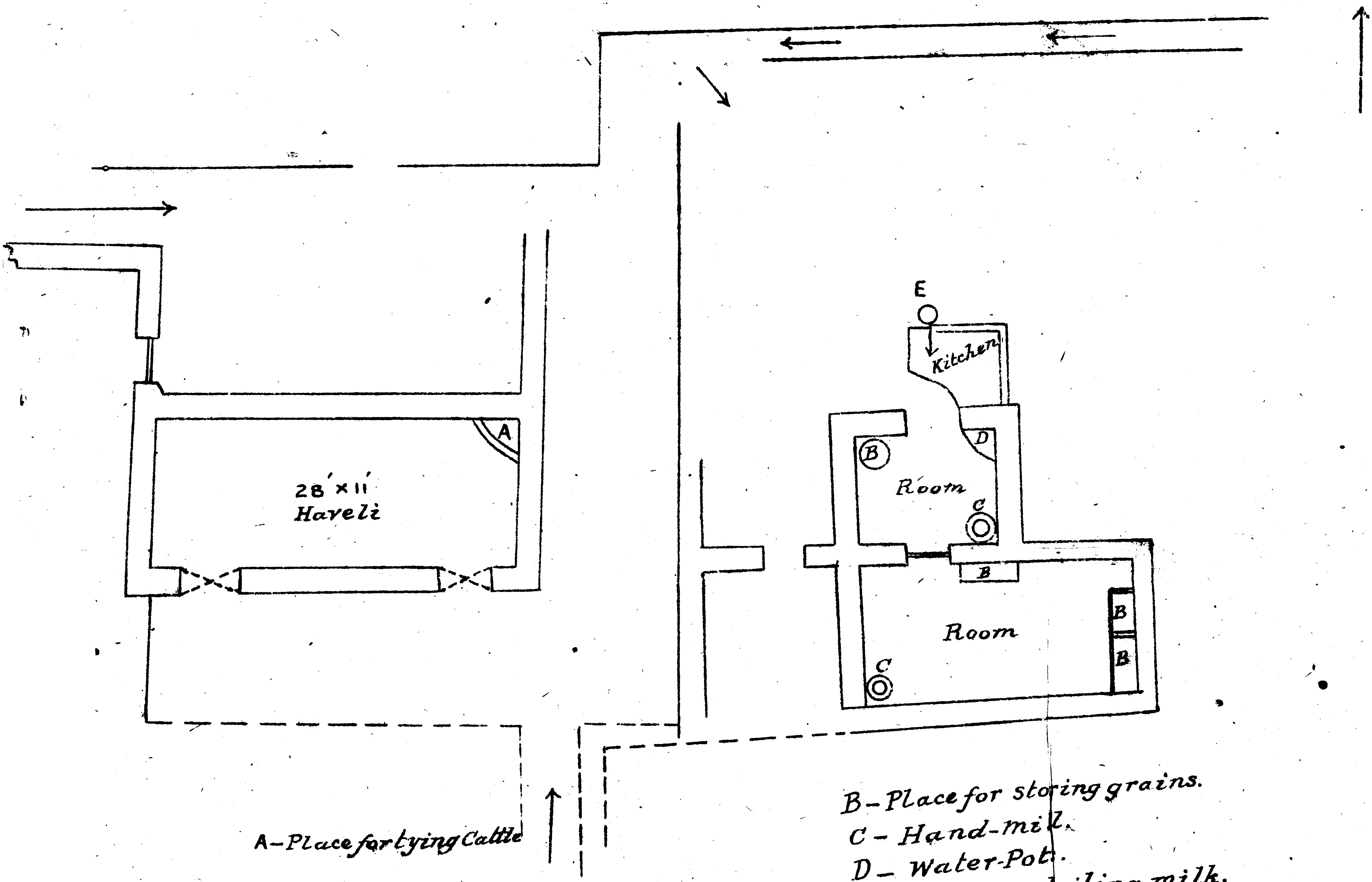
Number of Residents
Chajju,
His two daughters
and one son.



A— Kothi or Place for storing grains



House and Haveli of Dheru Chamar.



A–Place for tying Cattle

B–Place for storing grains.
C – Hand-mill.
D – Water-Pot.
E–Place for boiling milk.

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